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 NEWS  2  Sep 29   The Philippines Inventory of Chemicals and Chemical
                   Substances (PICCS) has been added to CHEMLIST
 NEWS  3  Oct 27   New Extraction Code PAX now available in Derwent
                   Files
 NEWS  4  Oct 27   SET ABBREVIATIONS and SET PLURALS extended in
                   Derwent World Patents Index files
 NEWS  5  Oct 27   Patent Assignee Code Dictionary now available
                   in Derwent Patent Files
 NEWS  6  Oct 27   Plasdoc Key Serials Dictionary and Echoing added to
                   Derwent Subscriber Files WPIDS and WPIX
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 NEWS  9  Dec  5   Trademarks on STN - New DEMAS and EUMAS Files
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 NEWS 11  Dec 17   Merged CEABA-VTB for chemical engineering and
                   biotechnology
 NEWS 12  Dec 17   Corrosion Abstracts on STN
 NEWS 13  Dec 17   SYNTHLINE from Prous Science now available on STN
 NEWS 14  Dec 17   The CA Lexicon available in the CAPLUS and CA files
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=> e williams gre/au

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E2            1     WILLIAMS GRAYLON KIRK/AU
E3            0 --> WILLIAMS GRE/AU
E4            3     WILLIAMS GREG/AU
E5            1     WILLIAMS GREG O/AU
E6            8     WILLIAMS GREG V/AU
E7            5     WILLIAMS GREGG/AU
E8            2     WILLIAMS GREGG H/AU
E9            1     WILLIAMS GREGG L/AU
E10          18     WILLIAMS GREGG T/AU
E11           2     WILLIAMS GREGORY/AU
E12          10     WILLIAMS GREGORY B/AU

=> e

E13           1     WILLIAMS GREGORY BRIAN/AU
E14           1     WILLIAMS GREGORY C/AU
E15           1     WILLIAMS GREGORY CHARLES/AU
E16          17     WILLIAMS GREGORY D/AU
E17           1     WILLIAMS GREGORY D A/AU
E18           1     WILLIAMS GREGORY EARL/AU
E19           1     WILLIAMS GREGORY G/AU
E20           5     WILLIAMS GREGORY J/AU
E21           2     WILLIAMS GREGORY JAMES/AU
E22          14     WILLIAMS GREGORY M/AU
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E23          1     WILLIAMS GREGORY MAXWELL/AU
E24          2     WILLIAMS GREGORY P/AU

=> s e12-13

L1          11 ("WILLIAMS GREGORY B"/AU OR "WILLIAMS GREGORY BRIAN"/AU)

=> e nothaft daniel m/au

E1           4     NOTHAFT D M/AU
E2           1     NOTHAFT DANIEL/AU
E3           2 --> NOTHAFT DANIEL M/AU
E4           3     NOTHAFT E M/AU
E5           2     NOTHAFT G/AU
E6           2     NOTHAFT HANS/AU
E7           4     NOTHAFT J/AU
E8          10     NOTHAFT P/AU
E9           3     NOTHAFT PETER/AU
E10          3     NOTHAFT R/AU
E11          3     NOTHAFT W/AU
E12          1     NOTHAKER H P/AU

=> s e1-3

L2           7 ("NOTHAFT D M"/AU OR "NOTHAFT DANIEL"/AU OR "NOTHAFT DANIEL
               M"/AU)

=> e enscoe glenn f/au

E1           5     ENSCOE G/AU
E2           1     ENSCOE G F/AU
E3           1 --> ENSCOE GLENN F/AU
E4           2     ENSCOE I/AU
E5           1     ENSCOE J E/AU
E6           1     ENSCORE D/AU
E7          36     ENSCORE D J/AU
E8          13     ENSCORE DAVID J/AU
E9           2     ENSCORE DAVID JAMES/AU
E10          2     ENSCORE JR E E/AU
E11          1     ENSCORE R/AU
E12          8     ENSCORE R E/AU

=> s e1-3

L3           7 ("ENSCOE G"/AU OR "ENSCOE G F"/AU OR "ENSCOE GLENN F"/AU)

=> e burtner kathleen n/au

E1           6     BURTNER K/AU
E2           1     BURTNER K N/AU
E3           1 --> BURTNER KATHLEEN N/AU
E4           1     BURTNER KENT M/AU
E5           9     BURTNER L W/AU
E6           6     BURTNER P/AU
E7           6     BURTNER P A/AU
E8           2     BURTNER PATRICIA A/AU
E9           5     BURTNER R H/AU
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E10           1      BURTNER R H JR/AU
E11           1      BURTNER R L/AU
E12           1      BURTNER R R/AU

=> s e1-3

L4            8 ("BURTNER K"/AU OR "BURTNER K N"/AU OR "BURTNER KATHLEEN N"/AU)

=> e kangas monte e/au

E1            1      KANGAS MINNA/AU
E2            1      KANGAS MONTE/AU
E3            0 --> KANGAS MONTE E/AU
E4            2      KANGAS N/AU
E5            1      KANGAS N L/AU
E6            1      KANGAS NANCY/AU
E7            1      KANGAS NUUTTI/AU
E8            2      KANGAS O/AU
E9           44      KANGAS P/AU
E10           6      KANGAS P C/AU
E11           3      KANGAS P D/AU
E12           2      KANGAS P J/AU

=> s e2

L5            1 "KANGAS MONTE"/AU

=> s l1 or l2 or l3 or l4  or l5

L6           28 L1 OR L2 OR L3 OR L4 OR L5

=> s microorg? or microbi? or bacteri?

   6 FILES SEARCHED...
L7      3206894 MICROORG? OR MICROBI? OR BACTERI?

=> s turbid? or absorb? or absorp? or scatter?

L8      2035768 TURBID? OR ABSORB? OR ABSORP? OR SCATTER?

=> s antimicrob? or antibiotic? antibacter?
<------User Break------>
u
SEARCH ENDED BY USER

=> s antimicrob? or antibiotic? or antibacter?

L9       878095 ANTIMICROB? OR ANTIBIOTIC? OR ANTIBACTER?

=> s l7 (s) l8 (s) l9

L10         3445 L7 (S) L8 (S) L9

=> s simultaneous? or concur? or synchron?

L11     1320518 SIMULTANEOUS? OR CONCUR? OR SYNCHRON?
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=> s l11 (s) l10

L12 89 L11 (S) L10

=> s l12 or 16

L13 117 L12 OR L6

=> dup rem l13

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L14 67 DUP REM L13 (50 DUPLICATES REMOVED)

=> s l14 not (py=2000 or py=2001)

L15 64 L14 NOT (PY=2000 OR PY=2001)

=> d ti 1-10

L15 ANSWER 1 OF 64 MEDLINE
TI Assessment of presystemic factors on the oral bioavailability of rifampicin following multiple dosing.

L15 ANSWER 2 OF 64 MEDLINE
TI Sequential antimicrobial therapy: comparison of the views of microbiologists and pharmacists.

L15 ANSWER 3 OF 64 MEDLINE
TI Antibiotic susceptibility of Stenotrophomonas (Xanthomonas) maltophilia: comparative (NCCLS criteria) evaluation of antimicrobial drugs with the agar dilution and the agar disk diffusion (Bauer-Kirby) tests.

L15 ANSWER 4 OF 64 MEDLINE
TI Oxidative stress in Staphylococcus aureus associated to the cleavage of an isoxazolylnaphthoquinoneimine with antibacterial capacity.

L15 ANSWER 5 OF 64 MEDLINE
TI An "in vitro" system simulates in membranes the antibacterial mechanism postulated for the action of isoxazolylnaphtoquinoneimine in Staphylococcus aureus.

L15 ANSWER 6 OF 64 MEDLINE
TI Multicenter evaluation of the MicroScan Rapid Gram-Negative Identification Type 3 Panel.

L15 ANSWER 7 OF 64 MEDLINE
TI The clinical pharmacokinetics of levofloxacin.

L15 ANSWER 8 OF 64 MEDLINE

TI Drug therapy in the neonatal foal.

L15 ANSWER 9 OF 64 MEDLINE
TI Ampicillin and its congener prodrugs in the horse.

L15 ANSWER 10 OF 64 MEDLINE
TI Use of multivariate analysis to compare antimicrobial agents on the basis of in vitro activity data.

=>

=> s l12 (s) automat?

L16 0 L12 (S) AUTOMAT?

=> s l12 (s) (auto?

UNMATCHED LEFT PARENTHESIS 'S) (AUTO?'
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=> s l12 (s) (auto? or comput?)

6 FILES SEARCHED...
L17 3 L12 (S) (AUTO? OR COMPUT?)

=> d ti 1-3

L17 ANSWER 1 OF 3 MEDLINE
TI Assessment of presystemic factors on the oral bioavailability of rifampicin following multiple dosing.

L17 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2001 BIOSIS
TI Assessment of presystemic factors on the oral bioavailability of rifampicin following multiple dosing.

L17 ANSWER 3 OF 3 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
TI Assessment of presystemic factors on the oral bioavailability of rifampicin following multiple dosing.

=> d bib abs l15 1-

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L15 ANSWER 1 OF 64 MEDLINE
AN 1999038146 MEDLINE
DN 99038146
TI Assessment of presystemic factors on the oral bioavailability of rifampicin following multiple dosing.
AU Zhang J N; Liu X G; Zhu M; Chiu F C; Li R C
CS Department of Pharmacy, Faculty of Medicine, The Chinese University of Hong Kong, Shatin, New Territories.
SO JOURNAL OF CHEMOTHERAPY, (1998 Oct) 10 (5) 354-9.

Journal code: JCY. ISSN: 1120-009X.
CY Italy
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199903
EW 19990305
AB This study was carried out to elucidate the possible mechanism(s) responsible for reduced oral rifampicin bioavailability after multiple dosing. In addition to autoinduction, the relative contribution of the two possible controlling factors, e.g., intestinal metabolism and ***microbial*** degradation, was investigated using a rat model. Pharmacokinetic studies were carried out to assess the absolute rifampicin bioavailability by both oral and intravenous drug administration before and after 8 daily doses of 25 mg/kg. To estimate the possible involvement of ***microbial*** degradation, rifampicin kinetics were also assessed in rats on day 8 after receiving multiple oral dosing and ***concurrent*** administration of nonabsorbable triple ***antibiotics*** for gut sterilization 3 days prior to the study day. Pharmacokinetic parameters were generated by noncompartmental analysis. The results revealed a significant decrease in rifampicin levels for rats after multiple exposure, compared to single dosing; the mean clearance determined by intravenous dosing increased by 43% from 3.7 ml/min/kg and the half-life decreased by 24% from 238 min. However, the extent of decrease in rifampicin exposure following multiple dosing was substantially greater for rats dosed orally than intravenously; estimated absolute oral bioavailability decreased by 15% from 0.89 on day 1 to 0.76 on day 8. No apparent alterations in any of the pharmacokinetic parameters were observed after gut sterilization, suggesting minimal contribution of ***microbial*** degradation to the reduction in oral rifampicin ***absorption*** after multiple dosing. In addition to hepatic enzyme autoinduction, these results strongly suggest the involvement of enhanced intestinal metabolism as a contributing factor to the decrease in oral rifampicin bioavailability following prolonged exposure.

L15 ANSWER 2 OF 64 MEDLINE
AN 1998427796 MEDLINE
DN 98427796
TI Sequential antimicrobial therapy: comparison of the views of microbiologists and pharmacists.
AU Smyth E T; Tillotson G S
CS Department of Bacteriology, The Royal Hospitals, Belfast, Northern Ireland, UK.
SO JOURNAL OF INFECTION, (1998 Jul) 37 Suppl 1 18-23.
Journal code: IG9. ISSN: 0163-4453.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199902
EW 19990204
AB Sequential ***antimicrobial*** therapy (SAT) is arousing keen interest in ***microbiologists*** and pharmacists. In an attempt to obtain information from these groups regarding the use of SAT in hospitals, an anonymized postal survey was carried out. A SAT questionnaire was circulated to consultant medical ***microbiologists*** , clinical ***microbiologists*** , and heads of pharmacy departments within the

British Isles. Four hundred and forty-seven ***microbiologists*** and pharmacists returned completed questionnaires, giving a response rate of 29%. Just over half of medical ***microbiologists*** (MM) and pharmacists (PH) indicated that SAT was used in their institution in respiratory medicine, geriatrics, surgery and, significantly, to a lesser degree in paediatrics. The most common infections treated were pneumonia, bronchitis and wound infection. However, there were significant differences between MM and PH, with MM favouring greater use of SAT in peritonitis (P=0.03), septicaemia (P<0.01), bone infection (P<0.01), pyelonephritis (UTI) (P<0.01), and PH favouring use in bronchitis (P<0.01). The ability to take oral fluids or a recognition of no potential ***absorption*** problems were key criteria in the decision process leading to the institution of SAT by MM and PH. Significantly more MM favoured employing criteria such as temperature <38 degrees C (P<0.01), no requirement for high tissue concentrations (P=0.02) and evidence of response to i.v. ***antimicrobial*** therapy (P<0.01) than PH. The most frequently "switched" ***antimicrobials*** were metronidazole, ciprofloxacin and co-amoxiclav. There were more than five times as many MM reporting the use of clindamycin than PH (P<0.01), whereas nearly twice as many PH cited use of cefuroxime (P<0.01). Of those hospitals not employing SAT, most MM and PH ***concurred*** that the commonest reason to institute SAT was financial, followed by convenience to patients and staff. However, more PH than MM indicated that protocols (P<0.01) and a reduction in i.v. complications (P<0.01) were important to them. In promoting SAT, MM and PH felt they had the major role. Significantly, each profession felt that the other had a lesser role to play; MM as judged by the PH (P<0.01) and PH as judged by MM (P<0.01). When promoting SAT, both MM and PH felt that "education for clinicians" followed by regular audit was the best way to ensure implementation. However, significant differences arose with PH regarding nurse education (P<0.01), SAT posters (P=0.02), regular review of patients (P=0.04) and patient's notes SAT stickers (P<0.01) as more important to them than MM. Significantly, less MM than PH (P<0.01) insisted that either the i.v. and PO ***antimicrobials*** were identical or were from the same group or class when "switching". This survey highlights interesting comparisons between the approaches of MM and PH towards SAT and may indicate ways in which both groups may work together to bring about change.

L15 ANSWER 3 OF 64 MEDLINE
AN 1998275553 MEDLINE
DN 98275553
TI Antibiotic susceptibility of Stenotrophomonas (Xanthomonas) maltophilia: comparative (NCCLS criteria) evaluation of antimicrobial drugs with the agar dilution and the agar disk diffusion (Bauer-Kirby) tests.
AU Traub W H; Leonhard B; Bauer D
CS Institut fur Medizinische Mikrobiologie und Hygiene, Universitat des Saarlandes, Deutschland, Germany.
SO CHEMOTHERAPY, (1998 May-Jun) 44 (3) 164-73.
Journal code: D15. ISSN: 0009-3157.
CY Switzerland
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199810
EW 19981003
AB Ninety-six clinical isolates of Stenotrophomonas maltophilia were examined

with the agar dilution method for susceptibility to 19 ***antimicrobial*** drugs. Doxycycline, cotrimoxazole, timentin, ofloxacin, fosfomycin, and piperacillin + tazobactam, in that order, inhibited the majority of strains. All isolates were resistant to nitrofurantoin. ***Concurrent*** disk susceptibility (Bauer-Kirby method) testing, using currently valid NCCLS interpretative criteria for Pseudomonas aeruginosa, uncovered a significant incidence of very major (category I), major (category II), and minor (categories III and IV) discrepancies for aminoglycosides, cephalosporins, chloramphenicol, and piperacillin + tazobactam and ticarcillin + clavulanic acid. Therefore, new interpretative criteria indicative of intermediate (I) susceptibility of S. maltophilia to these various ***antibiotics*** were proposed. In addition, new intermediate susceptibility criteria were proposed for the two beta-lactam-beta-lactamase inhibitor combinations. It was recommended to exclude ciprofloxacin from test batteries against this ***microorganism*** due to the wide ***scatter*** of minimal inhibitory concentration values and diameters of inhibition zones; the same was true for polymyxin B. It is hoped that the proposed modified, species-specific criteria will improve the clinical utility of laboratory-generated disk antibiograms with respect to the inherently multiple ***antibiotic*** -resistant, opportunistic pathogen S. maltophilia.

L15 ANSWER 4 OF 64 MEDLINE
AN 1998189221 MEDLINE
DN 98189221
TI Oxidative stress in Staphylococcus aureus associated to the cleavage of an isoxazolylnaphthoquinoneimine with antibacterial capacity.
AU Bogdanov P M; Bertorello M M; Albesa I
CS Departamento de Farmacia, Facultad de Ciencias Quimicas, Universidad Nacional de Cordoba, Argentina.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1998 Mar 17) 244 (2) 561-6.
Journal code: 9Y8. ISSN: 0006-291X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199806
EW 19980604
AB Staphylococcus aureus was inhibited by exposure to 2-hydroxy-N-(3,4-dimethyl-5-isoxazolyl)-1,4-naphthoquinone-4-imine (Q1). This compound was cleavaged in the presence of ***bacteria*** and an efflux of isoxazolamine was detected whereas in the S. aureus membrane and cytoplasm was observed an ***absorption*** band similar to that of the bencenoid ring. Non-viable ***bacteria*** showed intact Q1 intracellularly and in the membrane. Antistaphylococcus effect was associated to Q1 interaction with the respiratory chain, the oxidative metabolites were stimulated; there was cellular injury ***simultaneous*** to reduction of ***antibiotic*** molecule and efflux of isoxazolamine. The ***bacteria*** treated with Q1 increased its oxygen consumption and superoxide anion generation. Superoxide dismutase (SOD) production was stimulated, but it was principally extracellular in S. aureus. Escherichia coli, a species resistant to the ***antibiotic*** , did not reduce Q1 and showed lower superoxide anion generation; besides, there was an increase of intracellular SOD with extracellular decrease.

L15 ANSWER 5 OF 64 MEDLINE
AN 1998005104 MEDLINE
DN 98005104
TI An "in vitro" system simulates in membranes the antibacterial mechanism postulated for the action of isoxazolylnaphtoquinoneimine in Staphylococcus aureus.
AU Bogdanov P; Gonzalez M; Sperandeo N R; Fidelio G; Albesa I
CS Departamento de Farmacia, Facultad de Ciencias Quimicas, Universidad Nacional de Cordoba, Argentina.
SO BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1997 Oct 9) 239 (1) 186-90.
Journal code: 9Y8. ISSN: 0006-291X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199801
EW 19980104
AB The 2-hydroxy-N-(3,4-dimethyl-5-isoxazolyl)-1,4-naphthoquinone-4-imine (Q1) revealed good activity against Staphylococcus aureus. Q1 in contact with the ***bacteria*** experimented reduction evidenced by changes in its spectrum of ***absorption*** ***simultaneously*** with loss of colour. During the first 4 hours of incubation, oxygenation restored the original spectrum. Treatment with sodium borohydrure reduces irreversibly Q1. Redox-reaction "in vitro" was detected between Q1 and NADH in the presence of diaphorase. The environment of the probable site of action of Q1 was simulated using an artificial membrane system, instead of S. aureus membranes. Q1 interacts with lisophosphatidylcholine micelles following a cooperative binding model. The kinetics of Q1-reduction was increased by lipid micelles incorporated with the ***antibacterial*** compound.

L15 ANSWER 6 OF 64 MEDLINE
AN 97461221 MEDLINE
DN 97461221
TI Multicenter evaluation of the MicroScan Rapid Gram-Negative Identification Type 3 Panel.
AU Bascomb S; Abbott S L; Bobolis J D; Bruckner D A; Connell S J; Cullen S K; Daugherty M; Glenn D; Janda J M; Lentsch S J; Lindquist D; Mayhew P B; ***Nothaft D M*** ; Skinner J R; Williams G B; Wong J; Zimmer B L
CS Dade MicroScan Inc., West Sacramento, California 95691, USA.
SO JOURNAL OF CLINICAL MICROBIOLOGY, (1997 Oct) 35 (10) 2531-6.
Journal code: HSH. ISSN: 0095-1137.
CY United States
DT (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(MULTICENTER STUDY)
LA English
FS Priority Journals
EM 199801
EW 19980104
AB The accuracy and performance of the revised MicroScan Rapid Gram-Negative Identification Type 3 Panel (Dade MicroScan Inc., West Sacramento, Calif.) were examined in a multicenter evaluation. The revised panel database includes data for 119 taxa covering a total of 150 species, with data for 12 new species added. Testing was performed in three phases: the efficacy, challenge, and reproducibility testing phases. A total of 405 fresh and stock gram-negative isolates comprising 54 species were tested in the

efficacy phase; 96.8% of these species were identified correctly in comparison to the identification obtained either with the API 20E system (bioMerieux Vitek, Hazelwood, Mo.) or by the conventional tube method. The number of correctly identified isolates in the challenge phase, including new species added to the database, was 221 of 247, or 89.5%, in comparison to the number correctly identified by the conventional tube method. A total of 465 isolates were examined for intra- and interlaboratory identification reproducibility and gave an agreement of 464 of 465, or 99.8%. The overall reproducibility of each individual identification test or substrate was 14,373 of 14,384, or 99.9%. The new Rapid Gram-Negative Identification Type 3 Panel gave accurate and highly reproducible results in this multiple-laboratory evaluation.

L15 ANSWER 7 OF 64 MEDLINE
AN 97221880 MEDLINE
DN 97221880
TI The clinical pharmacokinetics of levofloxacin.
AU Fish D N; Chow A T
CS Department of Pharmacy Practice, University of Colorado Health Sciences Center, Denver, USA.
SO CLINICAL PHARMACOKINETICS, (1997 Feb) 32 (2) 101-19. Ref: 78
Journal code: DG5. ISSN: 0312-5963.
CY New Zealand
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199707
EW 19970703
AB Levofloxacin is a fluoroquinolone ***antibiotic*** and is the optical S-(-) isomer of the racemic drug substance ofloxacin. It has a broad spectrum of in vitro activity against Gram-positive and Gram-negative ***bacteria*** , as well as certain other pathogens such as Mycoplasma, Chlamydia, Legionella and Mycobacteria spp. Levofloxacin is significantly more active against ***bacterial*** pathogens than R-(+)-ofloxacin. Levofloxacin hemihydrate, the commercially formulated product, is 97.6% levofloxacin by weight. Levofloxacin pharmacokinetics are described by a linear 2-compartment open model with first-order elimination. Plasma concentrations in healthy volunteers reach a mean peak drug plasma concentration (Cmax) of approximately 2.8 and 5.2 mg/L within 1 to 2 hours after oral administration of levofloxacin 250 and 500mg tablets, respectively. The bioavailability of oral levofloxacin approaches 100% and is little affected by the administration with food. Oral ***absorption*** is very rapid and complete, with little difference in the serum concentration-time profiles following 500mg oral or intravenous (infused over 60 minutes) doses. Single oral doses of levofloxacin 50 to 1000mg produce a mean Cmax and area under the concentration-time curve (AUC) ranging from approximately 0.6 to 9.4 mg/L and 4.7 to 108 mg.h/L, respectively, both increasing linearly in a dose-proportional fashion. The pharmacokinetics of levofloxacin are similar during multiple-dose regimens to those following single doses. Levofloxacin is widely distributed throughout the body, with a mean volume of distribution of 1.1 L/kg, and penetrates well into most body tissues and fluids. Drug concentrations in tissues and fluids are generally greater than those observed in plasma, but penetration into the cerebrospinal fluid is relatively poor (concentrations approximately 16% of ***simultaneous*** plasma

values). Levofloxacin is approximately 24 to 38% bound to serum plasma proteins (primarily albumin); serum protein binding is independent of serum drug concentrations. The plasma elimination half-life (t1/2 beta) ranges from 6 to 8 hours in individuals with normal renal function. Approximately 80% of levofloxacin is eliminated as unchanged drug in the urine through glomerular filtration and tubular secretion; minimal metabolism occurs with the formation of no metabolites possessing relevant pharmacological activity. Renal clearance and total body clearance are highly correlated with creatinine clearance (CLCR), and dosage adjustments are required in patients with significant renal dysfunction. Levofloxacin pharmacokinetics are not appreciably affected by age, gender or race when differences in renal function, and body mass and composition are taken into account. Important drug interactions exist with aluminium- and magnesium-containing antacids and ferrous sulfate, as with other fluoroquinolones, resulting in significantly decreased levofloxacin ***absorption*** when administered ***concurrently*** . These agents should be administered at least 2 hours before or after levofloxacin administration. Cimetidine and probenecid decrease levofloxacin renal clearance and increase t1/2 beta; the magnitudes of these interactions are not clinically significant. Levofloxacin appears to have only minor potential for significantly altering the pharmacokinetics of theophylline, warfarin, zidovudine, ranitidine, digoxin or cyclosporin; however, patients receiving these drugs ***concurrently*** should be monitored closely for signs of enhanced pharmacological effect or toxicity. Levofloxacin pharmacokinetics are not significantly altered by sucralfate when administration of these drugs is separated by at least 2 hours.

L15 ANSWER 8 OF 64 MEDLINE
AN 94313445 MEDLINE
DN 94313445
TI Drug therapy in the neonatal foal.
AU Baggot J D
CS Irish Equine Centre, Johnstown, County Kildare..
SO VETERINARY CLINICS OF NORTH AMERICA. EQUINE PRACTICE, (1994 Apr) 10 (1) 87-107. Ref: 56
Journal code: CEP. ISSN: 0749-0739.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199410
AB The neonatal period in foals refers to the first 7 days of postnatal life. The effects of drugs (pharmacologic agents) may be different in neonatal foals, particularly during the first 3 days of postnatal life, from those in older foals and adult horses. The changed drug effects decrease as the physiologic processes that affect ***absorption*** , distribution, and elimination (metabolism and excretion) of drugs mature. Dosage regimens should take into account the altered pharmacokinetic profiles of drugs, and because of wide individual variation, the response to therapy should be closely monitored for signs of toxicity. In conjunction with the prudent use of drugs, good nursing care and the provision of supportive therapy are critical in the management of neonatal foal diseases. Over-crowding imposes stress upon young foals and predisposes them to an increased incidence of ***bacterial*** and parasitic infections. The collection of specimens for precise ***microbiologic*** diagnosis and

correction of deficits in serum immunoglobulins should precede ***antimicrobial*** therapy. Although E. coli is by far the most common cause of ***bacterial*** infections in neonatal foals, other ***bacterial*** pathogens of unpredictable susceptibility often cause infection. The selection of an ***antimicrobial*** drug for specific therapy should be based on both the ***microbiologic*** (quantitative susceptibility) and pharmacologic (pharmacokinetic) properties of the drug. The use of an ***antimicrobial*** drug or combination of drugs that will produce a ***bactericidal*** effect is highly desirable. Whenever possible, a parenteral preparation that can be administered intravenously should be chosen. The bioavailability and selectivity of action of pharmacologic agents are influenced by the dosage form and route of administration. Diazepam is the sedative drug of choice for neonatal foals. Cimetidine, an H2-receptor antagonist, may be indicated in foals diagnosed to have gastric ulcers; hepatic microsomal oxidative metabolism of drugs administered ***concurrently*** with cimetidine is decreased. Nonsteroidal anti-inflammatory drugs (flunixin, phenylbutazone) have a higher incidence of toxicity in foals and, when indicated, should be used at lower dosage than in adult horses. Even though it is highly important to maintain hydration status and electrolyte balance, intravenous infusion should always be performed slowly. Immature renal function decreases the ability of the neonatal animal to excrete excess fluid. The use of drugs in neonatal foals requires greater precision in dosage, more attention to the route and rate of administration, and close monitoring of pharmacologic effects.

L15 ANSWER 9 OF 64 MEDLINE
AN 94297972 MEDLINE
DN 94297972
TI Ampicillin and its congener prodrugs in the horse.
AU Sarasola P; McKellar Q A
CS Department of Veterinary Pharmacology, University of Glasgow Veterinary School..
SO BRITISH VETERINARY JOURNAL, (1994 Mar-Apr) 150 (2) 173-87. Ref: 55
Journal code: B5C. ISSN: 0007-1935.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL).
LA English
EM 199410
AB Ampicillin is an ***antibiotic*** commonly administered to horses by both the intramuscular (i.m.) and the intravenous (i.v.) route. Its physicochemical properties restrict its ***absorption*** after oral administration and explain its rapid elimination from the body. To prolong the effects of ampicillin in the horse, attempts have been made to alter its elimination and ***absorption*** rates. The alteration of urinary pH did not change the plasma disposition of the ***antibiotic*** but when probenecid was administered ***concurrently*** with ampicillin, a significant reduction of total body clearance was achieved. Ampicillin may also be maintained in the equine body, for a prolonged period of time when administered as an i.v. infusion. However, the practical difficulties associated with this route of administration and the limited potential advantage over conventional routes such as i.m. injection restrict its application to the critically ill animal and the perioperative period. When bacampicillin and pivampicillin (two ampicillin prodrugs) were administered to horses, high oral bioavailability was obtained, and the

use of prodrugs commands the need for further investigation. The use of ampicillin might be limited in the future as an increase in the number of resistant equine ***bacterial*** strains emerge and it may be prudent to restrict its use according to the principles of good clinical pharmacological practice.

L15 ANSWER 10 OF 64 MEDLINE
AN 94249983 MEDLINE
DN 94249983
TI Use of multivariate analysis to compare antimicrobial agents on the basis of in vitro activity data.
AU Hernandez J M; Conforti P
CS Clinical Investigation Department, Lilly S.A., Madrid, Spain..
SO ANTIMICROBIAL AGENTS AND CHEMOTHERAPY, (1994 Feb) 38 (2) 184-8.
Journal code: 6HK. ISSN: 0066-4804.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199408
AB Multivariate techniques such as principal component analysis or similar factor analysis help in analyses of the ***simultaneous*** interrelationships among several variables. A comparative multivariate analysis on the in vitro activities of eight ***antimicrobial*** agents, including the novel molecule daptomycin, is presented. Multivariate analysis detects components or factors and establishes connections among ***antimicrobial*** agents on the basis of their different levels of participation in each factor. The first principal component was dominated by vancomycin, teicoplanin, and rifampin (0.94344, 0.92792, and 0.72127, respectively). The second principal component showed strong effects from imipenem, gentamicin, and cephalothin (0.87922, 0.86126, and 0.68870, respectively). Daptomycin stood out alone in the third principal component (0.83983). The first three components defined 81.5% of the total variance and could easily be represented graphically in a three-dimensional ***scatter*** plot. In this graphic representation, the eight ***antimicrobial*** agents clustered in three different spatial regions; daptomycin occupied a separate spatial position. The use of multivariate analysis offers a different approach to determination of the in vitro activities of new ***antimicrobial*** agents and adds some new data on the relationships among different classes. Notwithstanding its limitations, the application of these methods in ***microbiology*** and drug development could be an additional tool for use in processing information.

L15 ANSWER 11 OF 64 MEDLINE
AN 92104023 MEDLINE
DN 92104023
TI Pharmacokinetics of rufloxacin in healthy volunteers after repeated oral doses.
AU Mattina R; Bonfiglio G; Cocuzza C E; Gulisano G; Cesana M; Imbimbo B P
CS Institute of Medical Microbiology, University of Milan, Italy..
SO CHEMOTHERAPY, (1991) 37 (6) 389-97.
Journal code: D15. ISSN: 0009-3157.
CY Switzerland
DT (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)

LA English
FS Priority Journals
EM 199204
AB Rufloxacin is a new broad-spectrum fluoroquinolone ***antibacterial*** agent. The pharmacokinetics and safety of rufloxacin were evaluated after repeated oral administration to healthy volunteers. The drug was administered once a day for 6 consecutive days following two different dose schedules. The first group of 11 subjects was given a loading dose of 300 mg on the first day and 150 mg on the subsequent 5 days. The second group of 12 subjects was given a loading dose of 400 mg and 200 mg for 5 days. Serum levels and urine concentrations of rufloxacin were determined by ***microbiological*** assay. A ***simultaneous*** fit of all data points for each subject was done according to a one-compartment open model. The drug was rapidly ***absorbed*** (***absorption*** half-life 17 +/- 6 min in the 300 + 150 mg and 11 +/- 5 min in the 400 + 200 mg dose regimen group) and reached maximal serum concentrations (2.77 +/- 0.24 and 3.62 +/- 0.35 micrograms/ml) 4.2 +/- 0.4 and 4.0 +/- 0.9 h after the first administration. Steady-state serum concentrations (3.19 +/- 0.31 and 4.06 +/- 0.33 micrograms/ml) were reached in 3.7 +/- 0.7 and 4.5 +/- 0.4 days. Elimination half-lives were 29.5 +/- 2.4 and 36.0 +/- 2.8 h. Apparent volumes of distribution were 111 +/- 8 and 136 +/- 16 liters and apparent plasma clearances were 46 +/- 5 and 44 +/- 4 ml/min. Renal clearances were 18 +/- 3 and 17 +/- 2 ml/min.(ABSTRACT TRUNCATED AT 250 WORDS)

L15 ANSWER 12 OF 64 MEDLINE
AN 92047627 MEDLINE
DN 92047627
TI The monobactams.
AU Brewer N S; Hellinger W C
CS Division of Infectious Diseases and Internal Medicine, Mayo Clinic Jacksonville, Florida..
SO MAYO CLINIC PROCEEDINGS, (1991 Nov) 66 (11) 1152-7. Ref: 56
Journal code: LLY. ISSN: 0025-6196.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 199202
AB The monobactam ***antibiotics*** are synthetic compounds, although monocyclic beta-lactam compounds have been found in nature in various soil ***bacteria*** . Although additional orally and parenterally administered monobactams are under investigation, the first marketed monobactam was aztreonam. This agent has an ***antimicrobial*** spectrum similar to that of gentamicin and tobramycin, aminoglycoside ***antibiotics*** . Aztreonam, however, is not nephrotoxic, is weakly immunogenic, and has not been associated with disorders of coagulation. Aztreonam may be administered intramuscularly or intravenously; ***absorption*** after oral administration is poor. The primary route of elimination is the urine. The serum half-life of the drug in patients with normal renal function is 1.5 to 2.1 hours; the recommended dosing interval in patients with normal renal function is every 8 hours. Dosage adjustment is necessary in patients with renal impairment. The strictly gram-negative aerobic spectrum of aztreonam limits its use as a single empiric agent.

Approved indications for its use include infections of the urinary tract or lower respiratory tract, intra-abdominal and gynecologic infections, septicemia, and cutaneous infections caused by susceptible organisms. ***Concurrent*** initial therapy with other ***antimicrobial*** agents is recommended before the causative organism (or organisms) has been determined in patients who are seriously ill and at risk for gram-positive or anaerobic infections.

L15 ANSWER 13 OF 64 MEDLINE
AN 92014532 MEDLINE
DN 92014532
TI Fine structure and sugar transport functions of the tegument in Clinostomum marginatum (Digenea: Clinostomatidae): environmental effects on the adult phenotype.
AU Uglem G L; Larson O R; Aho J M; Lee K J
CS School of Biological Sciences, University of Kentucky, Lexington 40506..
SO JOURNAL OF PARASITOLOGY, (1991 Oct) 77 (5) 658-62.
Journal code: JL3. ISSN: 0022-3395.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199201
AB Digenean flukes can be classified into 3 groups according to their location in the host: the lumen of the alimentary canal or associated organ, body cavity or tissue, and external surfaces. We obtained adults of Clinostomum marginatum that had matured in these 3 habitats and compared the fine structure and glucose transporting capacity of their teguments. Adults from the esophagus of herons, Ardea herodias, had thick, smooth teguments and took up glucose by facilitated diffusion, the type of transport that is Na(+)-independent and insensitive to phlorizin. By contrast, the surfaces of adults cultured from metacercariae in body cavities of laboratory mice were amplified 3-5-fold due to numerous irregular projections of the tegument. Glucose transport by these worms was largely Na(+)-dependent and inhibited by phlorizin, indicating active transport. Ectoparasites from herons' mouths had relatively thick, smooth teguments, but these worms always were encrusted with ***bacteria*** and yeast that are known to ***absorb*** and metabolize glucose. Most of the attached ***bacteria*** , and the apparent glucose uptake associated with their presence, were removed by treating the worms with ***antibiotics*** prior to transport assays. As facilitated diffusion and active transport are operational ***simultaneously*** in metacercariae, the type of transport function, if any, expressed in the adult is determined by environmental conditions associated with the worm's habitat.

L15 ANSWER 14 OF 64 MEDLINE
AN 91019503 MEDLINE
DN 91019503
TI Neobladders: clinical management and considerations for patients receiving chemotherapy.
AU Broderick G A; Stone A R; deVere White R
CS Department of Urology, University of California, Davis, School of Medicine 95817..
SO SEMINARS IN ONCOLOGY, (1990 Oct) 17 (5) 598-605. Ref: 45
Journal code: UN5. ISSN: 0093-7754.
CY United States

DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals; Cancer Journals
EM 199101
AB Continent catheterizable urinary reservoirs and orthotopic bladder substitutes are complex surgical endeavors. The goal is preservation of renal function, reliable continence, and storage intervals acceptable to the patient. The construction requires familiarity with bowel segments and may increase operative time for radical cystoprostatectomy by 30% to 50%. Patients with continent reservoirs have improved body image, work habits, and sexual and interpersonal relationships. Experience with patients with dysfunctional neurogenic bladders previously converted to Bricker urostomies now undiverted to continent reservoirs indicates an overall increase in physical activity and self-satisfaction. These patients are tolerant of reoperations to maintain independence from wet urostomies. Undoubtedly, the expectations of bladder cancer patients will differ from those of young adults with neurogenic bladder, but we have found that when all options are presented patients will seek out therapy that least alters their body image. Therefore, patient selection becomes an important factor in determining the success of continent reservoirs. Patients must have the dexterity and motivation to catheterize the urinary reservoir, irrigate for mucus and, in cases of orthotopic bladder replacement to urethra, accept the need for artificial sphincter placement in 30% to 40% of cases. Management of the neo-bladders requires additional consideration of several practical and theoretic points for both the surgeon and medical oncologist: 1. Patients with diffuse carcinoma in situ or transitional cell carcinoma at the bladder neck or prostatic urethra should undergo ***simultaneous*** urethrectomy excluding orthotopic bladder replacement. 2. Ten percent to 40% of patients undergoing radical cystoprostatectomy for transitional cell cancer will have concomitant underdiagnosed adenocarcinoma of the prostate; patient prognosis will remain defined by the stage and grade of the bladder cancer. 3. Patients may have a tendency toward dehydration because of increased loss of free water through bowel transit. 4. ***Absorption*** of chloride, ammonium, and hydrogen ions may cause hyperchloremic acidosis, especially in face of imparied renal function. 5. Because of the potential for drug ***absorption*** across reservoir mucosa, patients receiving chemotherapy may require Foley catheterization with irrigation in addition to intravenous hydration. 6. Creatinine clearance is unsuitable for studying the renal function of reservoir patients because urine passes through the intestinal segment where creatinine is ***absorbed*** ; glomerular filtration is better estimated by nuclear scanning with the reservoir emptied. 7. Most reservoirs will remain colonized with ***bacteria*** . 8. ***Antibiotic*** prophylaxis for the patient with
temporary impairment of immune function during chemotherapy may be necessary. 9. Mucus may entrap ***bacteria*** serving as a host defense; its production may diminish with time from construction. All patients should be capable of performing reservoir irrigations to manage mucus obstruction.(ABSTRACT TRUNCATED AT 400 WORDS)

L15 ANSWER 15 OF 64 MEDLINE
AN 91004780 MEDLINE
DN 91004780
TI Use of serum blank information to quantify chromogenic interferents and

correct sensitive analyses.
AU ***Burtner K*** ; Huber M; Frye S
CS Advanced Development, Research and Development, Baxter Healthcare Corp., Irvine, CA 92718..
SO CLINICAL CHEMISTRY, (1990 Sep) 36 (9) 1584-6.
Journal code: DBZ. ISSN: 0009-9147.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 199101

L15 ANSWER 16 OF 64 MEDLINE
AN 90200761 MEDLINE
DN 90200761
TI Bacteriolytic combination effect of cefminox and piperacillin evaluated by turbidimetry.
AU Goi H; Inouye S; Kitasato I
CS Central Research Laboratories, Meiji Seika Kaisha, Ltd., Yokohama, Japan..
SO DRUGS UNDER EXPERIMENTAL AND CLINICAL RESEARCH, (1989) 15 (9) 397-407.
Journal code: EBM. ISSN: 0378-6501.
CY Switzerland
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199007
AB The ***bacteriolytic*** combination effect of cefminox (a potent ***bactericidal*** cephamycin) and piperacillin (a broad spectrum ureidopenicillin) was investigated using ***turbidimetry*** and expressed as a measure of the combination effect by the relative ratios of ***bacteriolytic*** area under the growth curves. Against 20 strains of Gram-positive and -negative ***bacteria*** , ***simultaneous*** treatment of both ***antibiotics*** showed synergy (five strains), indifference (15 strains) and no antagonistic effect. Pretreatment with piperacillin for 1 h followed by combined treatment with cefminox showed a profound enhancement of the ***bacteriolytic*** activity against 12 out of 20 strains, especially against Serratia, Enterobacter and Pseudomonas species. In contrast, pretreatment with cefminox against seven strains gave mainly an indifferent effect (four strains). The ***turbidimetric*** method gave results comparable with those obtained from the chequerboard method (FIC index), as far as Gram-positive and some of the Gram-negative ***bacteria*** (E. coli, K. pneumoniae, M. morganii) were concerned. For Serratia, Enterobacter and Pseudomonas sp., the ***turbidimetric*** method showed synergy or indifference in many cases, whereas the chequerboard method showed antagonism. Marked enhancement of lysis by the combination was ascribed at least partly to the D-amino acid side-chain of cefminox.

L15 ANSWER 17 OF 64 MEDLINE
AN 84289130 MEDLINE
DN 84289130
TI Quaternary heterocyclylamino beta-lactams. III. The mode of action of L-640,876 and the effect of NaCl on membrane permeability and binding.
AU Koupal L R; Pelak B A; Cassidy P J; Gadebusch H H
SO JOURNAL OF ANTIBIOTICS, (1983 Jan) 36 (1) 54-63.
Journal code: HCF. ISSN: 0021-8820.
CY Japan

DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; Cancer Journals
EM 198412
AB L-640,876, 7-beta(1-benzylpyridinium-4-yl)amino-3-[((1-methyl-1 H-tetrazol-5-yl)thio]methyl)-ceph-3-em-4-carboxylate, is a potent representative of a new family of beta-lactam ***antibiotics*** which are similar in some respects to mecillinam. When L-640,876 and mecillinam were compared for effects on growth and morphology of Escherichia coli, it was observed that both drugs caused the formation of lemon-shaped cells during the first 30 minutes of exposure and during this period the culture ***turbidity*** increased without an appreciable change in culture viability. Unlike mecillinam, after 60 minutes of exposure to L-640,876 the majority of the lemon-shaped cells transformed into spindle-shaped cells and in the continuing presence of the drug formed osmotically fragile spheroplasts. Membrane binding studies indicated that, like mecillinam, L-640,876 was bound to the PBP-2 of E. coli and Proteus morganii; however, some binding of L-640,876 to the PBP-3 of E. coli was detected. In Staphylococcus aureus binding differences were more evident as L-640,876 was more rapidly bound to PBP-1 and 2 whereas mecillinam was rapidly bound to PBP-3. The reversal of inhibition of certain strains of Gram-negative ***bacteria*** by high ionic strength media could not be directly attributed to a reversal of ***antibiotic*** binding to the PBPs. Permeability studies indicated that the superior potency of L-640,876 in E. coli was partly due to its higher concentration in the periplasm which was unaffected by the ***simultaneous*** addition of drug and NaCl, however, in cells cultured in high ionic strength medium there was a marked reduction in penetration rate of all beta-lactams tested.

L15 ANSWER 18 OF 64 MEDLINE
AN 83055945 MEDLINE
DN 83055945
TI Simultaneous analysis of the serum and urinary pharmacokinetics of fortimicin A after intravenous administration to healthy subjects.
AU Sennello L T; Berman B I; Vance J F; Sonders R C
SO INTERNATIONAL JOURNAL OF CLINICAL PHARMACOLOGY, THERAPY, AND TOXICOLOGY, (1982 Sep) 20 (9) 393-8.
Journal code: GQ0.
CY GERMANY, WEST: Germany, Federal Republic of
DT (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)
LA English
FS Priority Journals
EM 198303
AB The present study was conducted to evaluate the single-dose pharmacokinetics of the pseudodisaccharide ***antibiotic*** , fortimicin A, in humans, following intravenous infusion of 2.5, 5.0, and 7.5 mg per kg doses of the free base (as fortimicin A sulfate) to 17 volunteers who were randomly assigned to each of three dose groups containing six, six, and five subjects, respectively. Each dose was infused in 100 ml of 5% glucose/water over 57-63 min (i.e., an infusion rate of approximately 1.7 ml per min). Serum samples were obtained at 0, 1, 1.25, 1.5, 1.75, 2, 3, 5, 6, 8, and 12 h after the start of the infusion. Urine was collected in 0-4, 4-8, 8-12, and 12-24 h fractions (also relative to start of infusion). Determinations of fortimicin A

concentrations were performed ***microbiologically*** on urine samples, and with a unique immunologic procedure on serum samples. Serum concentration-time and cumulative urinary excretion-time data for each subject were ***simultaneously*** fit to a two-compartment open model with zero-order ***absorption*** (i.e., infusion) and biexponential elimination. Of the six pharmacokinetic parameters studied (K21, K12, KNet, V1, cumulative fraction of drug excreted to infinite time, and renal clearance), significant (p = 0.05) dose-related differences were found only in the mean renal clearances between the 2.5 mg/kg dose group and the other two; however, this was of questionable practical importance. The overall mean beta-phase half-live was about 1.8 h, with little subject-to-subject variability.

L15 ANSWER 19 OF 64 MEDLINE
AN 82201845 MEDLINE
DN 82201845
TI [Characteristics of experimental antibiotic-induced dysbacteriosis]. Izuchnie osobennostei antibiotikovogo disbakterioza v eksperimente.
AU Martynov A I; Grinevich A S; Korshunov V M; Pinegin B V
SO ZHURNAL MIKROBIOLOGII, EPIDEMIOLOGII I IMMUNOBIOLOGII, (1982 Jan) (1) 48-54.
Journal code: Y9O. ISSN: 0049-8726.
CY USSR
DT Journal; Article; (JOURNAL ARTICLE)
LA Russian
FS Priority Journals
EM 198209
AB Changes in the microflora of the large and small intestines in mice and guinea pigs after the oral administration of canamycin (a hardly ***absorbable*** ***antibiotic***) and ampiox (an easily ***absorbable*** ***antibiotic***) in different doses. The administration of these ***antibiotics*** in different doses (therapeutic, subtherapeutic and over therapeutic) led to an increase in the number of opportunistic ***microorganisms*** and the contamination of the small intestine by these organisms. These changes were also well pronounced in guinea pigs, normally having no enterobacteria. After the administration of the ***antibiotics*** was stopped, opportunistic ***microorganisms*** were gradually eliminated from the small intestine.
The rate of decontamination depended on the administered dose of the ***antibiotic*** : the higher the dose was the longer the process of the decontamination of the small intestine lasted. An increase in the amount of opportunistic microbes in the large intestine and the decontamination of the small intestine occurred ***simultaneously*** with the decrease in the amount of lactobacilli and bifidobacteria in both the small and large intestines.

L15 ANSWER 20 OF 64 MEDLINE
AN 82033496 MEDLINE
DN 82033496
TI High-performance liquid chromatographic micro-assay for cefradine in biological fluids (author's transl).
AU Hayashi Y
SO JAPANESE JOURNAL OF ANTIBIOTICS, (1981 Mar) 34 (3) 440-6.
Journal code: KHV. ISSN: 0021-4906.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)

LA Japanese
FS Priority Journals
EM 198202
AB Recently, cephalosporins have been developed progressively that the clinical experiences in new cephalosporins have been reported one after another; some of them are widely used in daily medicine. The ***microbiological*** studies and other metabolic studies; i.e. ***absorption*** , distribution, and excretion, have undertaken ***simultaneously*** during the clinical trials of new ***antibiotics*** . On the other hand, the necessity of the optimum dose regimen for not only ***antibiotics*** but also other drugs has been emphasized to achieve the maximum pharmacological effects with minimal dosage or to prevent the side-effects and sequelae. In such cases, the monitoring of the blood level is essential and the drug concentration is necessary to be measured as soon as possible. The chemical assay has an advantage in this point over the bioassay, and has become available for the routine analysis recently. With cephalosporins, the blood and urine levels of cephalothin (CET), cefoxitin (CFX), cephalexin (CEX)(2,3), cefazolin (CEZ)(4), cefuroxime (CXM)(5), cephaloridine (CER)(6) and cefradine (CED)(7) determined by high-performance liquid chromatography (HPLC) have been reported. The author describes a new HPLC method using a reversed phase column which found to be applicable to the routine analysis of CED in serum and urine comparing with bioassay.

L15 ANSWER 21 OF 64 MEDLINE
AN 82007528 MEDLINE
DN 82007528
TI Synergistic effect of cephalexin with mecillinam.
AU Otsuki M
SO JOURNAL OF ANTIBIOTICS, (1981 Jun) 34 (6) 739-52.
Journal code: HCF. ISSN: 0021-8820.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198201
AB In vitro and in vivo synergistic effects of cephalexin and mecillinam against Escherichia coli, Klebsiella pneumoniae, Enterobacter sp., Serratia marcescens and Proteus sp. were demonstrated and their action mechanism were also discussed. The growth curve after the exposure of cephalexin and mecillinam at the concentrations at which these ***antibiotics*** had no effects when given alone showed a decreased of the ***turbidity*** and the presence of a ***bactericidal*** effect. In experimental infection in mice, the combination of both drugs showed a synergistic effect and excellent therapeutic effect. The blood concentration ratio of cephalexin to mecillinam was coincident with the concentration ratio of these ***antibiotics*** at which the synergistic effect was observed in vitro. Phase-contrast and scanning electron somewhat elongated ***bacteria*** and formation of spindle cells with swelling in the central part. A leakage of the cellular contents from part of the swelled cell wall was observed by transmission electron microscope. Cephalexin showed an affinity for penicillin binding proteins (PBPs)-1a and 3 in Escherichia coli and mecillinam showed an affinity for PBP-2. When these ***antibiotics*** were used ***concurrently*** , they exerted an additive effect to increase the affinity for PBPs. The lytic activity was increased much more after the combination of two ***antibiotics*** than after a single exposure.

L15 ANSWER 22 OF 64 MEDLINE
AN 81242708 MEDLINE
DN 81242708
TI Clinical results of cefadroxil in children and pharmacokinetics of the drug (author's transl).
AU Takimoto M; Cho K; Yoshioka H; Sanae N; Maruyama S
SO JAPANESE JOURNAL OF ANTIBIOTICS, (1981 Feb) 34 (2) 140-2.
Journal code: KHV. ISSN: 0021-4906.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA Japanese
FS Priority Journals
EM 198111
AB Cefadroxil was administered orally at a daily dose of 30-40 mg/kg to 8 cases of the infection of upper respiratory tract mainly due to beta-hemolytic Streptococcus, and efficacy was obtained in 7 cases, this rate being considered to be satisfactory, though the cases were too few to reach a conclusion. As to pathogens of ***bacterial*** infection of upper respiratory tract, beta-hemolytic Streptococcus and Staphylococcus aureus were encountered especially frequently, and in view of ***antibacterial*** activity against these 2 ***bacteria*** , our results could be approved. Further investigations should be performed carefully, however, to determine if cefadroxil may be a drug of first choice in the treatment of severe ***bacterial*** pneumonia and pyothorax. No side effects were observed throughout our treatment, though digestive tract disorders, especially diarrhea, are most frequent in literatures. As to pharmacokinetical characteristic of cefadroxil, almost the same results were obtained to other reports, though our data are insufficient as our experience was limited in only 1 case. Serum levels were determined after 35.7 mg/kg of cefadroxil were administered once orally, and a peak of about 38 mcg/ml appeared 2 hours later, and a high level of about 30 mcg/ml was maintained at 5 hours, though an oral dose was high. Efficacy for large area of ***bacterial*** infections may be expected from these serum levels. From urine collected ***simultaneously*** , about 74% of cefadroxil was recovered within more than 4 hours. This showed that cefadroxil was well ***absorbed*** from digestive tract, and a major part was excreted rapidly through kidney. From the results of our experiment, characteristics of cefadroxil may be summarized as follows. Cefadroxil is ***absorbed*** well after oral administration, ***antibacterial*** action is fully expected from serum level, a major part is excreted through kidney, and clearance is good. Cefadroxil will be recommended especially for ***bacterial*** infections of upper respiratory tract due to beta-hemolytic Streptococcus and Staphylococcus aureus.

L15 ANSWER 23 OF 64 MEDLINE
AN 81135566 MEDLINE
DN 81135566
TI Phase I and pharmacological studies of 5-fluorouracil administered intraperitoneally.
AU Speyer J L; Collins J M; Dedrick R L; Brennan M F; Buckpitt A R; Londer H; DeVita V T Jr; Myers C E
SO CANCER RESEARCH, (1980 Mar) 40 (3) 567-72.
Journal code: CNF. ISSN: 0008-5472.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)

LA English
FS Priority Journals
EM 198107
AB A Phase I study was conducted of 5-fluorouracil administered i.p. in a 2-liter volume of 1.5% Inpersol. The drug was administered via Tenckhoff peritoneal dialysis catheters to ten patients with tumors confined to the i.p. space. Dialysis concentrations ranged from 5 micro M to mM. Complications of the dialysis procedure alone included mild abdominal discomfort and 2 cases of gram-negative ***bacterial*** peritonitis, both easily controlled with ***antibiotics*** . 5-Fluorouracil caused the same pattern of toxicity as when administered by other routes. There was no local or central nervous system toxicity. Dose-limiting toxicity included pancytopenia and mucositis at a dialysis concentration of 4.5 to 5 mM administered for eight consecutive 4-hr exchanges. There were two documented responses in eight evaluable patients. 5-Fluorouracil concentrations were measured by high-pressure liquid chromatography. Peritoneal fluid concentrations decline in a first-order fashion with a half-life of 1.6 hr. The mean permeability area product was 14 ml/min. A mean of 82% of drug was ***absorbed*** in 4 hr. Plasma levels rise over the first 30 to 45 min and decline in a nonlinear fashion. Plasma levels are substantially lower than are peritoneal fluid levels. Mean 4-hr peritoneal fluid concentration was 298 times the ***simultaneously*** measured plasma levels. Total body clearance ranged from 0.9 to 15 liters/min and declined with increasing dialysate concentration. We conclude the i.p. route is a relatively safe way to deliver high concentrations and large amounts of drug to the i.p. cavity with a significant pharmacological advantage over conventional routes of administration.

L15 ANSWER 24 OF 64 MEDLINE
AN 81117716 MEDLINE
DN 81117716
TI Enzyme immunoassay for detection of antibody-coated bacteria.
AU Stamm W E; Cutter B E; Grootes-Reuvecamp G A
NC AI-07044 (NIAID)
SO JOURNAL OF CLINICAL MICROBIOLOGY, (1981 Jan) 13 (1) 42-5.
Journal code: HSH. ISSN: 0095-1137.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198106
AB To quantitatively evaluate factors potentially affecting antibody coating of ***bacteria*** in urine, we developed an assay with enzyme-linked rather than fluorescein-conjugated immunoglobulin. Using the enzyme immunoassay (EIA) in an in vitro system in which concentrations of serotype O44 Escherichia coli and antibody titer to E. coli Orr O44 O antigen were known, we compared specimens run in parallel with a fluorescent antibody (FA) assay. At greater than or equal to 10(5) ***bacteria*** per ml, antibody titer to homologous O antigen correlated directly with ***absorbance*** in the EIA. Both tests had sensitivities exceeding 95% in specimens containing greater than or equal to 10(5) ***bacteria*** per ml, but the FA test detected 23 of 27 positive specimens with less than 10(5) ***bacteria*** per ml compared with 21 of 43 detected by EIA (P = 0.002). However, nonspecific fluorescence caused false positives in 8% of negative tests run by FA

compared with 1% of ***simultaneous*** EIA tests (P = 0.05). pH alterations and pretreatment of ***bacteria*** with ***antibiotics*** did not affect either test. Heterologous E. coli strains showed no cross-reactivity with O44 antiserum, but all Staphylococcus aureus isolates tested caused false positives in both assays, and one Klebsiella strain repeatedly caused a false-positive FA assay. The EIA appears to be a simple, quantitative, and specific technique for detection of antibody-coated ***bacteria*** in this experimental system.

L15 ANSWER 25 OF 64 MEDLINE
AN 81064354 MEDLINE
DN 81064354
TI Increased gastrointestinal absorption of large molecules in patients after 5-fluorouracil therapy for metastatic colon carcinoma.
AU Siber G R; Mayer R J; Levin M J
NC I-CM-67037 (NCI)
SO CANCER RESEARCH, (1980 Oct) 40 (10) 3430-6.
Journal code: CNF. ISSN: 0008-5472.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198104
AB Chemotherapeutic agents may damage gastrointestinal epithelium and thereby impair the mucosal barrier to ***bacteria*** and their products. In order to obtain an objective measurement of gastrointestinal permeability to large molecules, we measured urinary excretion of [14C]polyvinylpyrrolidone administered p.o. (mean molecular weight 11,000) and tobramycin (molecular weight 467) in ten patients receiving 5-fluorouracil therapy for metastatic cancer of the colon. Base-line ***absorption*** of [14C]polyvinylpyrrolidone was 0.013 to 0.048% of the administered dose. Dose-related increases in ***absorption*** (range, two to 20 fold) occurred after 5-fluorouracil administration, but the dose response differed markedly between individuals. ***Absorption*** was maximal 8 to 15 days after the start of therapy, was correlated in time but not necessarily in severity with the presence of gastrointestinal symptoms, and was unaffected by oral nonabsorbable ***antibiotics*** . Tobramycin excretion was 8.5 times greater than [14C]polyvinylpyrrolidone excretion, but the two were highly correlated in ***simultaneous*** determinations (r, 0.93; p, < 0.001). With the exception of an episode of Escherichia coli bacteremia, infections coincided not with maximal [14C]polyvinylpyrrolidone ***absorption*** but with maximal granulocytopenia 17 to 24 days after the start of therapy. The gastrointestinal ***absorption*** of polyvinylpyrrolidone provides an objective measurement of mucosal integrity which may have applications in assessing the gastrointestinal toxicity of other cytotoxic agents.

L15 ANSWER 26 OF 64 MEDLINE
AN 80128869 MEDLINE
DN 80128869
TI [Accelerated determination of microbial sensitivity to antibiotics and chemotherapeutic preparations by serial dilutions using the peroxidase test].
Uskorennoe opredelenie chuvstvitel'nosti mikrobov k antibiotikam i khimioterapevticheskim preparatam metodom seriinykh razvedenii pri

pomoshchi proby na peroksidazu.
AU Fel'dman IuM; Leibman E T
SO ANTIBIOTIKI, (1980 Feb) 25 (2) 109-12.
Journal code: 6GC. ISSN: 0003-5637.
CY USSR
DT Journal; Article; (JOURNAL ARTICLE)
LA Russian
FS Priority Journals
EM 198006
AB A rapid method for determination of ***microbial*** sensitivity to ***antibiotics*** and chemotherapeutic drugs with the use of the peroxidase test is described. The procedure takes 6 hours. Peroxidase is determined by a change in the color of the methyl-para-amino phenol sulfate solution added to the broth culture in 6 hours (***simultaneously*** with hydrogen peroxide). The peroxidase test provides detection of the microbe multiplication even when no ***turbidity*** is observed.

L15 ANSWER 27 OF 64 MEDLINE
AN 79082979 MEDLINE
DN 79082979
TI The effect of antibiotics on the photocycle and protoncycle of purple membrane suspensions.
AU Avi-Dor Y; Rott R; Schnaiderman R
SO BIOCHIMICA ET BIOPHYSICA ACTA, (1979 Jan 11) 545 (1) 15-23.
Journal code: A0W. ISSN: 0006-3002.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 197905
AB The interrelation was studied between the phototransient ***absorbing*** maximally at 412 nm (M412) and light-induced proton release under steady-state conditions in aqueous suspensions of 'purple membrane' derived from Halobacterium halobium. The decay of M412 was slowed down by the ***simultaneous*** application of the ionophoric ***antibiotics*** valinomycin and beauvericin. The former had only slight activity alone and the latter was effective only in conjunction with valinomycin. The steady-state concentration of M412 which was formed on illumination was a direct function of the concentration of valinomycin. Maximum stabilization of M412 was obtained when the valinomycin was approximately equimolar with the ***bacteriorhodopsin*** . Addition of salts to the medium increased the number of protons released per molecule of M412 without affecting the level of M412 which was produced by continuous illumination. The effectiveness of the salts in this respect depended on the nature of the cation. Ca2+ and their antagonists La3+ and ruthenium red were found to have especially high affinity for the system. The extent of light-induced acidification could not be enhanced by increasing the pH of the medium from 6.5 to 7.8. The possible mechanism of action of the ionophores and of the cations on the photocycle and on the proton cycle is discussed.

L15 ANSWER 28 OF 64 MEDLINE
AN 77160853 MEDLINE
DN 77160853
TI Drug absorption in gastrointestinal disease with particular reference to malabsorption syndromes.

AU Parsons R L
SO CLINICAL PHARMACOKINETICS, (1977 Jan-Feb) 2 (1) 45-60. Ref: 88
Journal code: DG5. ISSN: 0312-5963.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LA English
FS Priority Journals
EM 197708
AB There is a considerable range in the dose of many drugs that is required to produce a given pharmacological effect in an individual patient. This individual variation in dose requirement is sometimes reflected in the wide ***scatter*** in the steady state plasma concentration that follows the same oral dose of a drug given to any group of subjects. Such individual differences are largely due to variation in the rate of elimination of drugs. Gastrointestinal disease may also alter oral dose requirements by producing variation in both the amount and rate of drug ***absorption*** . These changes may be reflected in the plasma concentration/time curve that follows an oral dose. The amount of drug abosorbed is ***simultaneously*** affected by many factors. These include the physicochemical properties of the drug and the physiological factors that operate within the gut, as well as the presence of other substances such as food, or interaction with other drugs in the gut. The availability of the drug within the intestinal lumen is largely governed by its dissolution characteristics, particularly factors which can interfere with dissolution of the drug product in the gut. Physiological factors within the gut that affect oral drug ***absorption*** include gastric emptying rate and intestinal motility, the pH of the gastrointestinal fluids, the activity of gastrointestinal drug metabolising enzymes (e.g. monoamine oxidase and dopa decarboxylase) or drug metabolising ***bacteria*** and the surface area of the gut. Many factors affect gastric emptying. These include disease, surgery and other drugs. A change in the rate of gastric emptying alters the rate of drug delivery from the stomach to the duodenum and upper small intestine. This may profoundly alter the plasma concentration/time curve that follows oral administration of many drugs. For some drugs, proximal jejunal disease may reduce, delay or increase the apparent amount of drug ***absorbed*** . Reduced ***absorption*** of an ***antibiotic*** leads to a fall in the peak plasma concentration. If the peak falls below the minimum inhibitory concentration for a particular organism then therapeutic failure may occur, if it is assumed that the peak plasma concentration is all important for ***antimicrobial*** activity. Excessive drug ***absorption*** may lead to drug toxicity. Abnormal drug ***absorption*** is a feature of lower small intestinal conditions such as Crohn's disease. This suggests that drug ***absorption*** is not confined to the jejunum but continues throughout the small intestine. It is not always possible to predict the pattern of drug malabsorption from a knowledge of the physicochemical and pharmacokinetic properties of the drug and the pathophysiology of the disease. The rate and amount of drug ***absorbed*** be one patient may differ from that in another patient with the same condtion. Although these differences reflect normal individual variation, they are also related to the extent and activity of disease at the time of study...

L15 ANSWER 29 OF 64 CANCERLIT
AN 74802738 CANCERLIT
DN 74802738

TI TREATMENT OF ACUTE LEUKAEMIA IN ADULTS.
AU Vincent P C; Gunz F W; Levi J A
CS Med. Res. Dept., Kanematsu Mem. Inst., Sydney Hosp., Sydney, Au.
SO Med J Aust, (1974). Vol. 1, No. 26, pp. 1035-1038.
ISSN: 0025-729X.
DT Journal; Article; (JOURNAL ARTICLE)
FS CATH
LA English
EM 197512
AB Adults show a preponderance for non-lymphoblastic acute leukemias which have a less favorable prognosis than the lymphoblastic type. More aggressive chemotherapy may be admin if the problem of infection can be managed. Platelet infusions have decreased risks of hemorrhage and infection in adults with acute leukemia. Semisynthetic penicillins, the cephalosporins and aminoglycosides, the use of low pathogen areas for treating patient, and leukocyte infusions have the lessened hazard of Gram-positive infections, while high-dose oral non- ***absorbable*** ***antibiotics*** have been reported to eliminate gastrointestinal Gram-negative ***bacteria*** in 90% of patient Reported remission rates in adults with acute leukemia range from 50-65% with a median survival of 34 wk. The majority of induction regimens include cytosine arabinoside (ara-C), usually combined with thioguanine (TG). The induction regimen currently being used for all patient except those with acute promyelocytic leukemia consists of hydroxyurea (6 mg/m**2/d x 2, po) followed by TG (2 mg/kg/d x 5, po) and ara-C (150 mg/m**2/d x 5, sc), with course repeated every 10-14 d. Second-line therapy for adults with acute lymphoblastic leukemia is composed of vincristine (VCR; 2 mg/m**2, iv) + prednisone (PRED; 60 mg/m**2/d, po) while for patient with acute non-lymphoblastic leukemia VCR (2 mg/m**2 on d 1, iv) followed by daunorubicin (60 mg/m**2/d x 3, iv) are admin. Remission rate was 20% with this regimen, although DNR produced remission rate of 50% in patient with acute promyelocytic leukemia. Combination of VCR and PRED produced a reported remission rate of 30% in patient with chronic granulocytic leukemia. ***Synchronization*** of cell division time with admin of chemotherapy is another approach that is being investigated. (21 refs)

L15 ANSWER 30 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 2000:57055 BIOSIS
DN PREV200000057055
TI Effect of nitric oxide on surfactant activity against Haemophilus influenzae growth.
AU Kim, Hyung-Soo (1); Kim, Won-yong (1); Kim, Min-Hee; Choi, Chul-Soon (1); Chung, Sang-In (1)
CS (1) Department of Microbiology, College of Medicine, Chung-Ang University, Seoul, 156-756 South Korea
SO Chung-Ang Journal of Medicine, (June, 1999) Vol. 24, No. 2, pp. 127-133.
ISSN: 0253-6250.
DT Article
LA Korean
SL English; Korean
AB Pulmonary surfactant has been shown to play an important role in ***bacterial*** clearance at the alveolar surface in the lung as well as in contributing to lung mechanics. The ***antimicrobial*** activity of the surfactant against a number of ***bacterial*** species was reported. Surfactant replacement is a potential life saving therapy in respiratory distress syndrome. The most striking acute effect has been

obtained with modified natural surfactant preparations containing both surface active lipids and proteins SP-B and -C. The clinical application of artificial surfactants has been steadily increased. Otherwise, inhalation of nitric oxide(NO) is applied for treatment on the respiratory distress syndrome. NO is also synthesized in many different cells. Macrophage-derived NO has a role in ***antimicrobial*** defense. Surfactant and inhaled NO are often used ***simultaneously*** in the treatment for the respiratory distress syndrome. But, NO2, which is oxidized from air NO, has toxic effects on the surfactant system. So, there is need to understand the possible interactions between NO and the surfactant. Especially, ***antimicrobial*** effects of surfactant by NO has not been studied in depth. H. influenzae is quite common pathogen in neonatal sepsis. In the respiratory distress syndrome, 5-10 % of patients were infected with pneumonic ***bacteria*** . Especially, clinical characteristics of the infection with H. influenzae were similar to those of early onset group B streptococcus including those respiratory distress syndrome. This study was performed to examine closely the effect of NO on the ***antimicrobial*** activity of surfactant. In this study, the effects of artificial surfactant on the growth of H. influenzae was investigated. The ***antimicrobial*** action of NO against H. influenzae was examined. And the effect of NO on ***antimicrobial*** activity of surfactant was also examined. Exponential growing H. influenzae was mixed with different concentrations of surfactants. Mixed solutions of ***bacteria*** -surfactant were incubated at 37degreeC for 90 min. Then, the mixtures was serially diluted with physiological saline. Each dilution of mixture was streak-cultured on chocolate agar medium. And the number of viable ***bacteria*** was determined by colony counting after 18 hour incubation. By the same methods effect of NO on ***antimicrobial*** activity of surfactant was examined. The ***antimicrobial*** activity of NO were measured by spectrophotometer. Different concentrations of SNAP(S-nitroso-N-acetyl-D, L-penicillamine) were mixed with ***bacterial*** cultured broth. After 3, 6, 10, 18 hour cultivation, the ***turbidity*** of ***bacterial*** culture was measured. Artificial surfactant(Exosurf and Surfactant-TA) almost completely inhibited the growth of H. influenzae at the concentration of 100%. There is no apparent difference between the treatments of two surfactants in the growth suppression of the tested ***microorganism*** . NO inhibited the growth of H. influenzae. NO affected the ***antimicrobial*** activity of artificial surfactants tested. This study suggested that NO inhibited the ***antimicrobial*** activities of artificial surfactants.

L15 ANSWER 31 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1999:334221 BIOSIS
DN PREV199900334221
TI Adapting MicroScan Rapid Gram-Negative Identification 3 system for use with the new MicroScan Antimicrobial Susceptibility Testing System.
AU Nothaft, D. (1); ***Enscoe, G. (1)*** ; Bray, J. (1); Wong, T. (1); Skeie, S. (1); Williams, G. (1)
CS (1) Dade MicroScan Inc., West Sacramento, CA USA
SO Abstracts of the General Meeting of the American Society for Microbiology, (1999) Vol. 99, pp. 197.
Meeting Info.: 99th General Meeting of the American Society for Microbiology Chicago, Illinois, USA May 30-June 3, 1999 American Society for Microbiology
. ISSN: 1060-2011.
DT Conference

LA English

L15 ANSWER 32 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1999:174511 BIOSIS
DN PREV199900174511
TI Universal test systems and methods of use thereof for identifying multiple families of microorganisms.
AU Godsey, J. H.; ***Nothaft, D. M.***
CS Folsom, Calif. USA
ASSIGNEE: DADE MICROSCAN INC.
PI US 5888760 March 30, 1999
SO Official Gazette of the United States Patent and Trademark Office Patents, (March 30, 1999) Vol. 1220, No. 5, pp. 4518.
ISSN: 0098-1133.
DT Patent
LA English

L15 ANSWER 33 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1999:100889 BIOSIS
DN PREV199900100889
TI The etiology of genital ulcer disease by multiplex polymerase chain reaction and relationship to HIV infection among patients attending sexually transmitted disease clinics in Pune, India.
AU Risbud, Arun; Chan-Tack, Kirk; Gadkari, Deepak; Gangakhedkar, Raman R.; Shepherd, Mary E.; Bollinger, Robert; Mehendale, Sanjay; Gaydos, Charlotte; Divekar, Anand; Rompalo, Anne; Quinn, Thomas C. (1)
CS (1) Div. Infectious Diseases, Johns Hopkins Univ., Ross Res. Build. Room 1159, 720 Rutland Ave., Baltimore, MD 21205-2196 USA
SO Sexually Transmitted Diseases, (Jan., 1999) Vol. 26, No. 1, pp. 55-62.
ISSN: 0148-5717.
DT Article
LA English
AB Objectives: To determine the etiology of genital ulcer disease (GUD) among patients attending sexually transmitted disease (STD) clinics in Pune, India, and to examine the relationship to HIV infection and compare the clinical diagnosis of GUD with the results of a multiplex polymerase chain reaction (M-PCR) assay for Treponema pallidum, herpes simplex virus (HSV), and Hemophilus ducreyi infection. Methods: Between June 20, 1994, and September 26, 1994, 302 patients with a genital ulcer were evaluated. Clinical etiology of GUD was based on physical appearance and ***microbiologic*** evaluations which included darkfield microscopy and serology for syphilis. Swabs of each genital ulcer were tested for HSV antigen by enzyme immunoassay (Herpchek; Dupont, Wilmington, DE) and processed in a multiplex PCR assay (M-PCR; Roche, Branchburg, NJ) for ***simultaneous*** detection of HSV, Treponema pallidum, and Hemophilus ducreyi. Results: Two hundred seventy-seven men and 25 women with a median age of 25 were evaluated. The seroprevalence of HIV was 22.2%. The etiology of GUD as determined by M-PCR was HSV (26%), H. ducreyi (23%), T. pallidum (10%), and multiple infections (7%); no etiology was identified in 34%. HIV seroprevalence was higher among those patients positive for HSV compared with other etiologies (OR = 2.1, CI: 1.2-3.7; p = 0.01). When compared with M-PCR, the Herpchek test was 68.5% sensitive and 99.5% specific. Darkfield detection for T. pallidum was 39% sensitive and 82% specific, in contrast to rapid plasma reagin and fluorescent treponemal antibody ***absorption*** test, which was 66% sensitive and 90% specific. Clinical diagnosis alone or in combination with basic laboratory tests showed poor agreement with M-PCR. Conclusions: The etiology of GUD

among STD patients in India is multifactorial with a predominance of herpes and chancroid infections. Herpes was more common among HIV-positive individuals, possibly reflecting underlying immunosuppression. These data demonstrate that clinical diagnosis is not dependable for identification of GUD etiology especially in HIV seropositive cases. In areas where diagnostic tests are limited, a syndromic approach using ***antibiotics*** directed against both syphilis and chancroid, and where prevalent, lymphogranuloma venereum and donovanosis is recommended for patients with GUD.

L15 ANSWER 34 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1996:357163 BIOSIS
DN PREV199699079519
TI Performance characteristics of the Paramax Total Thyroxine assay.
AU Hickey, Gary; Shih, Y.; Gonzalez, M.; Kaifer, C.; Hunter, T.; Sierant, K.; Altamirano, J.; Pfadenhauer, E.; ***Burtner, K.*** ; Mahaffey, R.
CS Dade International Inc., Miami, FL 33172 USA
SO Clinical Chemistry, (1996) Vol. 42, No. 6 PART 2, pp. S177.
Meeting Info.: 48th Annual Meeting of the American Association for Clinical Chemistry, Inc. Chicago, Illinois, USA July 28-August 1, 1996
ISSN: 0009-9147.
DT Conference
LA English

L15 ANSWER 35 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1995:289642 BIOSIS
DN PREV199598303942
TI New improved MicroScan Rapid Negative Identification Panel.
AU Achondo, K. (1); Bascomb, S. (1); Bobolis, J. (1); Chipman, A. (1); Connell, S. (1); ***Enscoe, G. (1)*** ; Gardner, B. (1); Mayhew, P. (1); Nothaft, D. (1); Skinner, J. (1); Stearn, L. (1); Williams, G. (1); Voong, J. (1); Abbott, S.; O'Hara, C.; Schreckenberger, P.
CS (1) Dade Int. Inc., MicroScan, West Sacramento, CA USA
SO Abstracts of the General Meeting of the American Society for Microbiology, (1995) Vol. 95, No. 0, pp. 53.
Meeting Info.: 95th General Meeting of the American Society for Microbiology Washington, D.C., USA May 21-25, 1995
ISSN: 1060-2011.
DT Conference
LA English

L15 ANSWER 36 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1995:60248 BIOSIS
DN PREV199598074548
TI Effect of smoking cessation upon circulatory responses to reactive hyperemia and cold pressor stress.
AU Montgomery, Leslie D. (1); ***Williams, Gregory B.***
CS (1) 1764 Emory St., San Jose, CA 95126 USA
SO Aviation Space and Environmental Medicine, (1994) Vol. 65, No. 11, pp. 1005-1009.
ISSN: 0095-6562.
DT Article
LA English

L15 ANSWER 37 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1994:380675 BIOSIS
DN PREV199497393675

TI Performance characteristics of the Paramax theophylline assay.
AU Hickey, Gary; Gonzalez, M.; Pfadenhauer, E.; Hunter, T.; Goodnow, T.; ***Burtner, K.***
CS Baxter Diagnostics Inc., Paramax Chemistry, Miami, FL 33174 USA
SO Clinical Chemistry, (1994) Vol. 40, No. 6, pp. 1085.
Meeting Info.: 46th National Meeting of the American Association for Clinical Chemistry, Inc. New Orleans, Louisiana, USA July 17-21, 1994
ISSN: 0009-9147.
DT Conference
LA English

L15 ANSWER 38 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1989:378381 BIOSIS
DN BA88:58971
TI A STUDY OF THE COMBINED ACTION OF THE ANTIBIOTIC POLYMYXIN B AND LIPID-SOLUBLE ANION SDS ON LIPID BILAYER MEMBRANES.
AU KOREPANOVA E A; PREOBRAZHENSKAYA T A; CHASOVNIKOVA L V; VLADIMIROV YU A
CS LAB. BIOPHYS., N.I. PIROGOV SECOND MOSC. STATE MED. INST., MOSCOW, USSR.
SO BIOL MEMBR, (1989) 6 (1), 90-95.
CODEN: BIMEE9. ISSN: 0233-4755.
FS BA; OLD
LA Russian
AB Interaction of polymyxin B and SDS with lipid bilayers and monolayers formed from asolectin was studied. Ionic permeability of a bilayer lipid membrane was not changed with only polymyxin at concentrations approaching the ***bactericidal*** ones or only SDS (below 50 .mu.M) being added. A combined addition of these compounds to solution bathing the membrane resulted in a considerable increase in the bilayer lipid membrane electric conductivity. At concentrations less than 100 .mu.M, polymyxin poorly incorporated into monolayer formed at surface pressure of 20 mN/m. The onset of SDS incorporation into monolayer could be observed at the detergent concentrations over 1 .mu.M. A ***simultaneous*** introduction of polymyxin and the detergent under the monolayer with pressure being 20 mN/m caused a non-additive increase of the monolayer surface pressure. This effect seems to be related to their combined incorporation into monolayer. Formation of the lipophilic electroneutral complex from the ***antibiotic*** and detergent molecules that incorporates into bilayer with concomitant generation of ion-transporting structures is supposed to be the cause of the potentiated effect of polymyxin on bilayer ionic permeability in the presence of the lipophilic action. The indirect evidence for the formation of complexes is the appearance of aggregates in the polymyxin plus SDS-containing solution which makes the solution ***turbid*** . Polymyxin ionophoric effect on biological membranes is supposed to depend on their content of free fatty acids.

L15 ANSWER 39 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1988:415209 BIOSIS
DN BA86:77821
TI BACTERIOLOGICAL PHARMACOKINETIC AND CLINICAL STUDIES ON ROKITAMYCIN DRY SYRUP IN THE PEDIATRIC FIELD.
AU TOYONAGA Y; SUGITA M; JOH K; TAKAHASHI T; WATANABE Y; HORI M
CS DEP. PEDIATRICS, YAMANASHI RED CROSS HOSP.
SO JPN J ANTIBIOT, (1988) 41 (6), 720-738.
CODEN: JJANAX. ISSN: 0368-2781.
FS BA; OLD
LA Japanese

AB ***Bacteriological*** , pharmacokinetic and clinical studies were done on the effect of rokitamycin (RKM, TMS-19-Q), in the field of pediatrics. The results are summarized below. 1. ***Antibacterial*** activities ***Antibacterial*** activities of RKM against Staphylococcus aureus (icluding 50 methicillin-sensitive and 50 methicillin-resistant strains), 18 strains of Haemophilus influenzae and 50 strains of Campylobacter jejuni were studied comparatively with activities of josamycin (JM), midecamycin (MDM), erythromycin (EM) and cefaclor (CCL) or ampicillin. Minimum inhibitory concentrations (MICs) of the 5 ***antibiotics*** against methicillin-sensitivive S. aureus showed a wide variation but RKM was somewhat superior among them. MIC80 of those ***antibiotics*** tested against methicillin-sensitive S. aureus were as follows; RKM 1.56, JM 12.5, MDM 12.5, EM 6.25, and CCL 3.13 .mu.g/ml. Among methicillin-resistant S. aureus (MRSA), ratios of strains highly resistant to these ***antibiotics*** (MIC .gtoreq. 100 .mu.g/ml) to total number of strains tested were: 18% to RKM, and 26%, 34% and 48% to JM, MDM and EM, respectively, again showing the superiority of RKM and the proliferation of resistant organisms to EM. MICs to RKM against H. influenzae were distributed in a range between 0.78 and 12.5 .mu.g/ml, which were similar to MIC range of CCL, and approximately twice as high as that of EM, but 4 folds lower than those of JM and MDM. Against C. jejuni, the MIC range of RKM was quite broad, 0.10 .apprx. 12.5 .mu.g/ml, with a peak value of 0.20 .mu.g/ml. The cumulative number of strains vs. MIC curve was similar to that of EM, and RKM was approximately 4 to 8 folds more effective than the other 3 ***antibiotics*** . 2. ***Absorption*** and excretion The ***absorption*** and the excretion of RKM were studied with its dry syrup preparations. Dose levels examined were 5 mg/kg in 2 cases, 10 mg/kg in 7 cases, 15 mg/kg in 2 cases and 20 mg/kg in 1 case. Peak concentrations of RKM in blood were not dose-dependent and were 0.16 .apprx. 0.23, 0.29 .apprx. 0.91, 0.35 .apprx. 0.46 .mu.g/ml and 0.53 .mu.g/ml, respectively, for the 4 dose levels. Most of drug levels dropped below the detection limit in 4 hours after the administration when dose levels up to 10 mg/kg were used, and when dose levels were at or above 15 mg/kg, 0.07 .apprx. 0.09 .mu.g/ml of RKM was detected in blood at 6 hours after the administration. Urinary recovery rates in 6 hours were between 0.19 and 3.31%. 3. Clinical study Clinical efficacies were examined in a total of 53 cases including 17 cases of mycoplasmal pneumonia, 7 cases of ***bacterial*** pneumonia, 3 cases of bronchitis (including 1 ***concurrent*** case tonsillitis), 13 cases of tonsillitis/pharyngitis, 9 cases of scarlet fever/streptococcal infections, and 1 case each of pertussis, chlamydial infection, colitis (due to Klebsiella), and campylobacterial colitis. Clinical efficacies were excellent in 37 cases, good in 11 cases, fair in 1 case, and poor in 4 cases, hence the efficacy rate was 90.6%. A dose level between 27.3 and 40.0 mg/kg was used in each case, and 3 daily doses were administered in all cases but one. ***Bacteria*** were cultured from 19 cases, and they were eradicated from 16 of these cases. No noticeable abnormalities were found as side effects but 1 case of watery stool. No abnormal laboratory test values were observed.

L15 ANSWER 40 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1988:410742 BIOSIS
DN BR35:73717
TI PERFORMANCE CHARACTERISTICS OF THE PARAMAX ANALYTICAL SYSTEM FOR THE DETERMINATION OF TOTAL IRON BINDING CAPACITY TIBC.
AU ***BURTNER K*** ; JOSEPH R; PHILLIPS E; LOHMAN T; ELLS K; NORRIS S
CS BAXTER HEALTHCARE CORPORATION, PARAMAX SYSTEMS DIV., IRVINE, CA.

SO 40TH NATIONAL MEETING OF THE AMERICAN ASSOCIATION FOR CLINICAL CHEMISTRY, NEW ORLEANS, LOUISIANA, USA, JULY 24-28, 1988. CLIN CHEM. (1988) 34 (6), 1191.
CODEN: CLCHAU. ISSN: 0009-9147.
DT Conference
FS BR; OLD
LA English

L15 ANSWER 41 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1988:364688 BIOSIS
DN BR35:49301
TI EVALUATION OF THE MICROSCAN RAPID POS ID PANEL.
AU GODSEY J; KELLEY R; NOTHAFT D; BOBOLIS J; ***ENSCOE G*** ; TOMFOHRDE K
CS RES. DEV., MICROSCAN, WEST SACRAMENTO, CALIF.
SO ANNUAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, MIAMI BEACH, FLORIDA, USA, MAY 8-13, 1988. ABSTR ANNU MEET AM SOC MICROBIOL. (1988) 88 (0), 381.
CODEN: ASMACK. ISSN: 0094-8519.
DT Conference
FS BR; OLD
LA English

L15 ANSWER 42 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1988:364675 BIOSIS
DN BR35:49288
TI EVALUATION OF THE MICROSCAN RAPID NEG ID PANEL.
AU TOMFOHRDE K; KELLEY R; NOTHAFT D; BOBOLIS J; ***ENSCOE G*** ; GODSEY J
CS RES. DEV., MICROSCAN, WEST SACRAMENTO, CALIF.
SO ANNUAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, MIAMI BEACH, FLORIDA, USA, MAY 8-13, 1988. ABSTR ANNU MEET AM SOC MICROBIOL. (1988) 88 (0), 379.
CODEN: ASMACK. ISSN: 0094-8519.
DT Conference
FS BR; OLD
LA English

L15 ANSWER 43 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1984:323879 BIOSIS
DN BA78:60359
TI ANTAGONISM OF DENTAL PLAQUE FLORA WITH SPECIAL ATTENTION TO ANTI BACTERIAL AGENTS FROM BACTERIONEMA-MATRUCHOTII.
AU KANAGAWA N
CS DEP. ORAL MICROBIOL., MATSUMOTO DENTAL COLL., SHIOJIRI 399-07, JPN.
SO SHIKWA GAKUHO, (1983 (RECD 1984)) 83 (9), 1219-1237.
CODEN: SHGKA3. ISSN: 0037-3710.
FS BA; OLD
LA Japanese
AB The production of ***bacteriocin*** or ***bacteriocin*** -like substances by ***bacteria*** from dental plaque was assessed. Suspensions of dental plaque obtained from 4 individuals were inoculated into broth and incubated by the following methods: anaerobic culture in a mixed atmosphere consisting of N2, H2 and CO2 (85:10:5) (method A); stationary culture in the open atmosphere (method B); and shaking culture in the open atmosphere (method C). The diffusion method, using 6 indicator strains, was employed to determine the presence of inhibitory agents in the culture supernatants and cell extract, no agents inhibitory to Streptococcus sanguis were discovered. Cell extracts from cells obtained

by method A inhibited Propionibacterium acnes and Bacteroides melaninogenicus. Two samples of such extracted cells were active against S. mutans. Three samples of method C cell extracts and culture supernatants showed ***simultaneous*** inhibition of ***Bacterionema*** matruchotii, Staphylococcus aureus and P. acnes. Since such inhibition occurred only in instances in which the shaking method was employed, it is likely to be caused by a substance produced by aerobic species. Fourteen strains demonstrating this inhibitory property were obtained from dental plaque taken from 18 people. Biochemical and morphologic properties indicated that the isolates were B. matruchotii. When the stab-culture method was used, these ***bacteria*** were found to inhibited the growth of B. matruchotii, S. aureus, P. acnes, S. salivarius, Actinomyces and Lactobacillus. One of the shaking-culture isolates (IBN-6) liberated the inhibitory agent into its growth medium. The inhibitory spectrum described above coincided with that of this culture supernatant. Neither UV-irradiation nor mitomycin C treatment stimulated production of the inhibitory agent. The inhibitory agent was precipitated from the culture supernatant by addition of (NH4)2SO4 at a 50% saturation; it was nondialyzable. Thermo-stable, the agent retained almost full activity after heating at 100.degree. C for 10 min. Treatment with various enzymes had no effect on its activity. The crude material was CHCl3-methanol (2:1) soluble. Material recovered from the solvent was subjected to TLC and developed with ethyl acetate: methanol (2:1). After development and incubation to determine the positions of inhibitory activity, the silica plate was overlaid with an agar medium containing the indicator strain. Two inhibitory spots appeared on the plate, indicating that IBN-6 produces 2 inhibitory agents which were separated by different mobility on the chromatogram. The two were designated matrucin A (high mobility) and B (low mobility). Colorization tests of spots of matrucin A and B to determine phopholipid, cholesterol, free amino acids and carbohydrates gave negative results. The 2 substances ***absorbed*** UV light readily and were positive to the imino-group reaction. Amino acid analysis detected methionine, tyrosine, phenylalanine and an unidentified amino acid in hydrolysates from both matrucin preparations. The matrucin may therefore be categorized as a peptide ***antibiotic*** . The matrucins were ***bacteriostatic*** .

L15 ANSWER 44 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1984:176237 BIOSIS
DN BA77:9221
TI ABOUT THE USE OF ANTIBIOTICS BY AEROSOL EXPERIENCE WITH SISOMICIN.
AU MORANDINI G C; MAURO M; FINIGUERRA M; ZANIERATO G
CS CHAIR RESPIRATORY PATHOPHYSIOL., UNIV. PAVIA, ITALY.
SO DRUGS UNDER EXP CLIN RES, (1981 (RECD 1983)) 7 (4), 513-520.
CODEN: DECRDP. ISSN: 0378-6501.
FS BA; OLD
LA English
AB The use of ***antibiotic*** aerosol therapy in the treatment of bronchial and bronchopulmonary ***bacterial*** infections as the sole method or as a supplement to agent systemic treatment was evaluated. The importance of aminoglucoside ***antibiotics*** , particularly sisomicin, in the therapy of respiratory infections caused by gram-negative ***bacteria*** is discussed. ***Absorption*** of sisomicin through the bronchial barrier was studied after inhalation of 2 doses. Blood levels were estimated at various intervals up to the 2nd h. The therapeutic efficacy in humans of sisomicin was evaluated after ***simultaneous*** systemic and aerosol administration for treatment of

infections caused by gram-negative organisms and Staphylococcus aureus. Evidently, sisomicin administered by aerosol is a valuable supplement to systemic administration.

L15 ANSWER 45 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1983:197300 BIOSIS
DN BA75:47300
TI EXPERIMENTAL STUDY OF ANTIBIOTIC INDUCED DYS BACTERIOSIS.
AU MARTYNOV A I; GRINEVICH A S; KORSHUNOV V M; PINEGIN B V
CS PIROGOV SECOND MOSC. MED. INST., MOSCOW, USSR.
SO ZH MIKROBIOL EPIDEMIOL IMMUNOBIOL, (1982) 0 (1), 48-54.
CODEN: ZMEIAV. ISSN: 0372-9311.
FS BA; OLD
LA Russian
AB Changes in the microflora of the large and small intestines in mice and guinea pigs after the oral administration of kanamycin (a hardly ***absorbable*** ***antibiotic***) and ampiox (an easily ***absorbable*** ***antibiotic***) in different doses. The administration of these ***antibiotics*** in different doses (therapeutic, subtherapeutic and overtherapeutic) led to an increase in the number of opportunistic ***microorganisms*** and the contamination of the small intestine by these organisms. These changes were pronounced in guinea pigs, which normally lack enterobacteria. After the administration of the ***antibiotics*** was stopped, opportunistic ***microorganisms*** were gradually eliminated from the small intestine.
The rate of decontamination depended on the administered dose of the ***antibiotic*** : the higher the dose was the longer the process of the decontamination of the small intestine lasted. Increases in the amount of opportunistic microbes in the large intestine and in the decontamination of the small intestine occurred ***simultaneously*** with the decrease in the amount of lactobacilli and bifidobacteria in both the small and large intestines.

L15 ANSWER 46 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1982:282161 BIOSIS
DN BA74:54641
TI APPLICATIONS OF FLOW CYTOMETRY ON BACTERIA CELL CYCLE KINETICS DRUG EFFECTS AND QUANTITATION OF ANTIBODY BINDING.
AU STEEN H B; BOYE E; SKARSTAD K; BLOOM B; GODAL T; MUSTAFA S
CS DEP. BIOPHYSICS, LAB. IMMUNOL., NORSK HYDRO'S INST. CANCER RES., MONTEBELLO, OSLO 3, NORW.
SO CYTOMETRY, (1982) 2 (4), 249-257.
CODEN: CYTODQ. ISSN: 0196-4763.
FS BA; OLD
LA English
AB Dual parameter flow cytometric analysis of ***bacteria*** was found technically feasible. A microscope based flow cytometer with either a 100 W Hg-arc or a 5 W Ar laser as the excitation light source was used to record fluorescence and light ***scatter*** ***simultaneously*** to produce 3-dimensional histograms correlating the 2 parameters. Escherichia coli K-12 were fixed in ethanol and stained with mithramycin. Fluorescence (DNA)/light ***scatter*** histograms of cells in various phases of growth were recorded at a rate of up to 1 .times. 104 cells/s with an instrumental resolution corresponding to coefficient of variation < 5%. Similar histograms of cells stained with FITC [fluorescein-isothiocyanate] indicated that light ***scatter*** was approximately

proportional to total cell protein. Histograms showing the relative cellular contents of DNA and protein in cultures of rapidly growing E. coli were in quantitative agreement with a current model of ***bacterial*** growth. Histograms of E. coli in slow growth indicated that a significant portion of the cells were in a nonreplicating phase. Four ***antibiotics*** , all ribosomal inhibitors of protein synthesis, were found to affect the cell cycle differently when present in concentrations sufficient to stop cell division. Mycobacterium leprae bacilli were coated with FITC-labeled M. leprae specific, human antiserum and with a BCG antiserum. The resulting FITC fluorescence/light ***scatter*** histograms yielded the amount of antibody/cell as related to cell size thus facilitating a determination of antigenicity per unit cell weight. The results exemplify ***bacteriological*** applications of flow cytometry and demonstrate the efficiency of the method in obtaining detailed and precise information on single ***bacteria*** in large numbers.

L15 ANSWER 47 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1982:184807 BIOSIS
DN BA73:44791
TI THE NONCOVALENT BONDING OF ANTIBIOTICS TO A POLY TETRA FLUORO ETHYLENE BENZALKONIUM GRAFT.
AU HARVEY R A; GRECO R S
CS DIVISION OF GENERAL SURGERY, CMDNJ-RUTGERS MEDICAL SCH., P.O. BOX 101, PISCATAWAY, N.J. 08854.
SO ANN SURG, (1981) 194 (5), 642-647.
CODEN: ANSUA5. ISSN: 0003-4932.
FS BA; OLD
LA English
AB This study evaluates the noncovalent bonding of anionic ***antibiotics*** to polytetrafluoroethylene grafts using benzalkonium chloride as a cationic anchor. The binding of radiolabeled surfactants and ***antibiotics*** was evaluated by liquid scintillation and in an in vitro ***microbiologic*** assay against Staphylococcus aureus. Significant quantities of ***antibiotic*** were bound when the grafts were pretreated with benzalkonium in ethanol or aqueous solution at elevated temperature. Bound ***antibiotic*** is stable in aqueous salt solutions, but slowly dissociates in the presence of blood or serum. The ionic nature of the bonding process is clarified by the use of a variety of ***antibiotics*** and surfactants with complementary charges. The ability of the benzalkonium treated grafts to ***absorb*** ***antibiotic*** from blood is, likewise, demonstrated and the possibility of concomitantly binding heparin and ***antibiotic*** ***simultaneously*** is evaluated. These studies support the ability to noncovalently bond ***antibiotics*** to polytetrafluoroethylene surfaces and form the basis for eventually utilizing these surfaces in the prevention of vascular prosthetic infections.

L15 ANSWER 48 OF 64 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1981:180661 BIOSIS
DN BA71:50653
TI MUTUAL PRO DRUGS OF BETA LACTAM ANTIBIOTICS AND BETA LACTAMASE INHIBITORS.
AU BALTZER B; BINDERUP E; VON DAEHNE W; GODTFREDSEN W O; HANSEN K; NIELSEN B; SORENSEN H; VANGEDAL S
CS LEO PHARMACEUTICAL PRODUCTS, DK-2750 BALLERUP, DENMARK.
SO J ANTIBIOT (TOKYO), (1980) 33 (10), 1183-1192.
CODEN: JANTAJ. ISSN: 0021-8820.

FS BA; OLD
LA English
AB The principle of combining a .beta.-lactam ***antibiotic*** with a [***bacterial***] .beta.-lactamase inhibitor in a single molecule functioning as pro-drug for the 2 active components is illustrated by the linked esters 3 and 4 in which ampicillin and mecillinam, respectively, are combined with the .beta.-lactamase inhibitor penicillanic acid sulfone. In man these esters are excellently ***absorbed*** from the gastro-intestinal tract and after ***absorption*** hydrolyzed with ***simultaneous*** liberation of the active components. As a result high blood and tissue levels of ***antibiotic*** and .beta.-lactamase inhibitor in a balanced ratio are attained. The advantages of "mutual pro-drugs" over simple combinations combinations are discussed.

L15 ANSWER 49 OF 64 CAPLUS COPYRIGHT 2001 ACS
AN 1992:102089 CAPLUS
DN 116:102089
TI Microdrop technology: a general method for separating cells by function and composition
AU Weaver, James C.; Bliss, Jonathan G.; Harrison, Gail I.; Powell, Kevin T.; ***Williams, Gregory B.***
CS Div. Health Sci. Technol., Massachusetts Inst. Technol., Cambridge, MA, 02139, USA
SO Methods (San Diego) (1991), 2(3), 234-47
CODEN: MTHDE9; ISSN: 1046-2023
DT Journal
LA English
AB Microdrop technol. provides cell sepn. based on quant. detn. of cell function (e.g., growth, lack of growth, drug susceptibility, secretion of proteins, specific enzyme activity, prodn. of small metabolites) and/or of cell compn. (e.g., surface markers, internal proteins, nucleic acid sequences). Three basic steps are involved: (1) forming microdrops from a cell suspension, which provide manipulable microenvironments for tests on individual cells and microcolonies; (2) carrying out assays within many microdrops simultaneously; and (3) isolating microdrops of interest by using phys. methods such as pipetting (manual) and FACS (automated). Microdrop technol. is based on liq. and gel microdrops (e.g., 10-300-.mu.m diam.) and uses fluorescence measurements to rapidly analyze the amt. of specific or generic material in each microdrop. Liq. microdrops (LMDs) are aq. microdrops surrounded by a nonaq. fluid and can be regarded as microminiaturized microtiter wells, because water-sol. cell products are retained in the LMDs contg. the originating cell. Gel microdrops (GMDs) are aq. microdrops contg. a biocompatible matrix and can be used while surrounded either by a nonaq. fluid (closed GMDs) or by an aq. medium (open GMDs). In the latter case, the manipulations needed for individual cell protein secretion immunoassays and growth assays can be readily performed. In the case of clonal growth leading to microcolony formation, GMDs serve as microminiaturized petri dishes, because cell progeny are retained next to each other. In fact, for most applications GMDs are preferred because of their greater robustness and flexibility. Important attributes are: (1) GMDs are phys. manipulable and can be handled much like cells (e.g., suspended, pipetted, centrifuged), and (2) GMDs rapidly exchange mols. with the external medium by diffusion, which allows rapid changes in the exposure of individual cells and microcolonies within GMDs to many different chem. conditions. Basic feasibility has been demonstrated, and many important applications appear possible.

L15 ANSWER 50 OF 64 CAPLUS COPYRIGHT 2001 ACS
AN 1990:494345 CAPLUS
DN 113:94345
TI Process for forming and using gel microdroplets
IN Weaver, James C.; ***Williams, Gregory B.*** ; Bliss, Jonathan G.; Powell, Kevin T.; Harrison, Gail I.; Joseph, Julian
PA Massachusetts Institute of Technology, USA
SO PCT Int. Appl., 151 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8910566	A1	19891102	WO 1989-US1699	19890421
	W: AT, AU, BB, BG, BR, CH, DE, DK, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, RO, SD, SE, SU				
	RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG				
	US 4959301	A	19900925	US 1988-185083	19880422
	US 5055390	A	19911008	US 1988-185156	19880422
	US 5225332	A	19930706	US 1988-184969	19880422
	AU 8935567	A1	19891124	AU 1989-35567	19890421
	EP 411038	A1	19910206	EP 1989-905521	19890421
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 03503845	T2	19910829	JP 1989-505255	19890421

PRAI US 1988-184968 19880422
US 1988-184969 19880422
US 1988-185083 19880422
US 1988-185084 19880422
US 1988-185136 19880422
US 1988-185156 19880422
US 1988-185160 19880422
US 1988-185475 19880422
WO 1989-US1699 19890421

AB Gel microdroplets (GMDs) are formed contg. biol. entities (e.g. cells, vesicles, spores, organelles, viruses, nucleic acid, etc.) and binding sites. The GMDs are useful in capturing mols. released from the biol. entities, in measuring the captured mols., in measuring biol. entities, in detg. the effect of compds. on the growth of the biol. entities, in detg. the no. of viable biol. entities per vol. of sample, in measuring biol. entities in a sample contg. .gtoreq.2 types of biol. entities, in isolation of cells, etc. Processes for chem. and phys. manipulation of the GMDs are also disclosed. Agarose was combined with RPMI 1640 medium supplemented with 10% fetal calf serum, heated in a 90.degree. water bath to cause melting, cooled in a 37.degree. water bath, mixed with polystyrene beads coated with goat anti-mouse IgG, mixed with mouse hybridoma cells, mixed with mineral oil to create liq. microdroplets, and chilled in a 0.degree. water bath to cause agarose gelation and GMD formation. The GMDs were incubated in culture medium, rinsed with phosphate-buffered saline, and incubated for 30 min with buffer contg. fluorescein conjugated with goat anti-mouse IgG. GMDs with entrapped beads and hybridoma cells showed many bright green speckles by microscopy.

L15 ANSWER 51 OF 64 CAPLUS COPYRIGHT 2001 ACS
AN 1990:402773 CAPLUS

DN 113:2773
TI Rapid microbial detection and enumeration using gel microdroplets and colorimetric or fluorescence indicator systems
AU ***Williams, Gregory B.*** ; Weaver, James C.; Demain, Arnold L.
CS Dep. Biol., Massachusetts Inst. Technol., Cambridge, MA, 02139, USA
SO J. Clin. Microbiol. (1990), 28(5), 1002-8
CODEN: JCMIDW; ISSN: 0095-1137
DT Journal
LA English
AB As new micromethod employing gel microdroplets (GMDs) and optical measurements can be used for rapid detection and enumeration of viable microorganisms (Weaver, J. C. et al., 1988) and has several potential applications in clin. microbiol. This method involves entraping microorganisms in GMDs (10-100 .mu.m in diam.) which are surrounded by a hydrophobic (low dielec.) fluid, subsequently distinguishing occupied and unoccupied GMDs with colorimetric or fluorescence indicators, counting both occupied and unoccupied GMDs, and applying Poisson statistical anal. Acid-producing microorganisms were used to compare colorimetric and fluorescence pH indicator systems. Fluorescence systems were generally superior, particularly for detection before microbial growth occurred. Although colorimetric detection was reasonably fast for fast-growing microorganisms, significantly longer times were needed for slow-growing microorganisms. The dependence of the detection time was examd. on microbial division time, GMD size, and buffering capacity of the medium within GMDs. It was possible to use a single prepn. of GMDs, contg. a range of GMD sizes, to simultaneously provide a viable enumeration of growing and nongrowing (e.g., stressed) cells. This was possible because small GMDs responsed rapidly to both growing and nongrowing cells, while large GMDs, although slower, responded much more rapidly to growing cells than to nongrowing cells. Sep. anal. of small and large GMDs in the same prepn. yielded 2 enumerations, one of nongrowing cells and the other of growing cells. GMDs can also be used with conventional light microscopy to detect and enumerate fast-growing acid-producing bacteria much more quickly than conventional plating methods.

L15 ANSWER 52 OF 64 CAPLUS COPYRIGHT 2001 ACS
AN 1988:626018 CAPLUS
DN 109:226018
TI Gel microdroplets: rapid detection and enumeration of individual microorganisms by their metabolic activity
AU Weaver, James C.; ***Williams, Gregory B.*** ; Klibanov, Alexander; Demain, Arnold L.
CS Div. Health Sci. Technol., Massachusetts Inst. Technol., Cambridge, MA, 02139, USA
SO Bio/Technology (1988), 6(9), 1084-9
CODEN: BTCHDA; ISSN: 0733-222X
DT Journal
LA English
AB A new, flexible method is described for rapid detection and enumeration of individual microorganisms by using small (e.g., 10-100-.mu.m diam.) gel particles surrounded by a non-aq. liq. with low dielec. const. Primary samples without prior cultivation can be used. In the title study, gel microdroplets (GMDs) surrounded by an inert oil were statistically inoculated such that GMDs had a high probability of initially contg. either 0 or 1 acid-producing microorganism. Such GMDs retained dissociable metabolites produced by individual cells (or microcolonies) within the small GMD vol. The accumulated metabolic acids led to rapid

changes in pH within GMDs initially occupied by 1 microorganism or colony forming unit, while GMDs with 0 microorganisms had unchanged pH. The cumulative activity within individual GMDs was then detd. by using pH-sensitive fluorescence indicators. This method was used to enumerate individual cell viability directly, without any prior culture, from clin. infected urine samples in about 1.5 h for several rapidly growing pathogens and agreed with much slower conventional culture methods. Because GMDs can be made readily in large nos., and because many indicator systems can be used, GMDs used with automated measurement app. should have wide applicability.

L15 ANSWER 53 OF 64 CAPLUS COPYRIGHT 2001 ACS
AN 1986:511789 CAPLUS
DN 105:111789
TI Ammonia and propionate modulate the morphological response of aggregation-competent Dictyostelium discoideum to cAMP
AU ***Williams, Gregory B.*** ; Elder, Eleine M.; Sussman, Maurice
CS Dep. Biol. Sci., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA
SO Differentiation (Berlin) (1986), 31(2), 92-9
CODEN: DFFNAW; ISSN: 0301-4681
DT Journal
LA English
AB Two metabolites, NH3 and propionic acid, are known to act as morphogens during the development of D. discoideum, specifically altering the course of morphogenesis and cytodifferentiation. They have also been shown to modulate the cAMP relay in this organism: NH3 by restricting intracellular accumulation, and propionate by inhibiting extracellular release. The light-scattering properties of aggregation-competent cells in agitated suspension were used to demonstrate that the morphol. responses of such cells to exogenous cAMP are also modulated by NH3 and propionate in a manner that has interesting implications for the overall control of morphogenetic movements in D. discoideum. Expts. were conducted using a newly designed continuous-flow app. that represents a significant improvement in the technique. The app. is described in detail.

L15 ANSWER 54 OF 64 CAPLUS COPYRIGHT 2001 ACS
AN 1985:468106 CAPLUS
DN 103:68106
TI Studies on the establishment of a self-sustaining morphogenetic field in Dictyostelium discoideum
AU ***Williams, Gregory Brian***
CS Univ. Pittsburgh, Pittsburgh, PA, USA
SO (1984) 113 pp. Avail.: Univ. Microfilms Int., Order No. DA8504399
From: Diss. Abstr. Int. B 1985, 45(12, Pt. 1), 3700
DT Dissertation
LA English
AB Unavailable

L15 ANSWER 55 OF 64 CAPLUS COPYRIGHT 2001 ACS
AN 1984:626510 CAPLUS
DN 101:226510
TI Modulation of the cAMP relay in Dictyostelium discoideum by ammonia and other metabolites: possible morphogenetic consequences
AU ***Williams, Gregory B.*** ; Elder, Elaine M.; Sussman, Maurice
CS Dep. Biol. Sci., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA
SO Dev. Biol. (1984), 105(2), 377-88
CODEN: DEBIAO; ISSN: 0012-1606

DT Journal
LA English
AB Using a perfusion technique (Devreotes, P. N., et al., 1979) it was shown that cAMP secretion by aggregation-competent cells in response to an exogenous cAMP signal is significantly reduced by exposure to NH4Cl or any of a set of carboxylic acids that includes propionate, succinate, pyruvate, and acetate. The effects of NH4Cl and any of the carboxylic acids are rapidly expressed, and are reversible. The activity of NH4Cl is marked at pH 7.2 and undetectable at pH 6.2. Hence, NH3 is presumably the active mol. species. Propionate activity is significantly greater at pH 6.2 than 7.2 indicating that the un-ionized acid is the active species. The data indicate that these effects are exerted via 2 sep. and independent routes. During exposure of cAMP-stimulated cells to NH4Cl, the decrease in intracellular cAMP accumulation was even greater than the decrease in extracellular accumulation. Hence, NH3 appears to act as a cAMP accumulation inhibitor. In contrast, exposure to carboxylic acid concns. that drastically reduce extracellular cAMP accumulation can actually enhance or, at worst, only slightly reduce intracellular accumulation. Hence, the carboxylic acids appear to act as cAMP release inhibitors. Stationary phase cells incubated on solid substratum in the presence of NH4Cl plus succinate (or propionate) for 18 h failed to exhibit even the earliest signs of aggregation. If then harvested and redeposited in the absence of the metabolites, they proceeded through the morphogenetic sequence with approx. normal kinetics, suggesting that no significant morphogenetic competence had been achieved during their previous tenure. The morphogenetic implications of cAMP relay modulation are discussed.

L15 ANSWER 56 OF 64 CAPLUS COPYRIGHT 2001 ACS
AN 1984:587751 CAPLUS
DN 101:187751
TI Reversible inhibition of aggregation-related cohesivity in Dictyostelium discoideum by diffusible metabolites
AU McConaghy, John R.; Saxe, Charles L., III; ***Williams, Gregory B.*** ; Sussman, Maurice
CS Dep. Biol. Sci., Univ. Pittsburgh, Pittsburgh, PA, 15260, USA
SO Dev. Biol. (1984), 105(2), 389-95
CODEN: DEBIAO; ISSN: 0012-1606
DT Journal
LA English
AB Evidence presented elsewhere (G. B. Williams, et al., 1984) indicates that NH3 and certain carboxylic acids including propionate, succinate, and acetate modulate the cAMP relay in D. discoideum. The former appears to act as a cAMP accumulation inhibitor, the latter as cAMP release inhibitors. The cohesive properties of aggregation-competent cells were assayed quant. in the presence of these modulators. At pH 7.5, EDTA-resistant cohesivity was greatly inhibited by NH4Cl within the concn. range tested (30-3.8 mM). At the higher concns. the effect was not immediate but required 10 min for full expression. At the lower concns., the inhibitory level was only slightly reduced but the time for full expression progressively increased. At pH 6.5, the level of inhibition was marginal, indicating that NH3 is the active mol. species. By themselves, neither ambient pH nor ionic strength appeared to affect cohesive performance within the ranges employed. The inhibition was immediately and completely reversed upon removal of NH4Cl or a shift of ambient pH from 7.5 to 6.5. The presence of cycloheximide did not affect the recovery of cohesivity after NH4Cl removal. The presence of 15 mM

succinate, propionate, or acetate also reduced cell cohesivity. The timing and extent of the inhibition were identical at pH 7.5 and 6.5. The inhibition was expressed immediately and was reversible. Each of the acids acted synergistically with NH4Cl. The relative potencies of these metabolites acting singly or in combination as inhibitors of cohesivity corresponded roughly to their potencies as modulators of the cAMP relay (C. B. Williams et al., 1984). The sensitivity to the metabolites was stage specific, being max. during and shortly after aggregation and disappearing abruptly at 11-12 h. This corresponds to the time at which this cohesive system, responsible for the end-to-end cell assocns. evident during aggregation is supplanted by a newly arisen, serol. and genetically distinct system which thereafter maintains the integrity of the aggregate. The activities of the metabolites, detailed above, are discussed in relation to their previously demonstrated activities as morphogens.

L15 ANSWER 57 OF 64 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
AN 1999420643 EMBASE
TI [Interaction of estrogens and progestins with other drugs].
INTERAKCIJE ESTROGENIH I GESTAGENIH LIJEKOVA S DRUGIM LIJEKOVIMA.
AU Zorc B.; Martinac A.; Zovko M.
CS B. Zorc, Farmaceutsko-Biokemijski Fakultet, Sveuciliste u Zagrebu, Zagreb, Croatia
SO Farmaceutski Glasnik, (1999) 55/11 (397-405).
Refs: 23
ISSN: 0014-8202 CODEN: FAGLAI
CY Croatia
DT Journal; (Short Survey)
FS 010 Obstetrics and Gynecology
037 Drug Literature Index
LA Serbo-Croatian
SL English; Serbo-Croatian
AB Estrogens and progestins are given for replacement therapy indeficiency states, for menopausal and postmenopausal disorders, for contraception, for the treatment of malignant neoplasm, either alone or combined. Hormonal drugs can interact with a number of other medications, but not all interactions are clinically significant. One of the most important interactions is the interaction with anticonvulsants. Barbiturates, carbamazepine and hydantoins accelerate the biotransformation of both estrogens and progestins through enzyme induction and lower sex hormones blood level. Reduced contraceptive effectiveness and increased incidence of breakthrough bleeding and menstrual irregularities have been associated with concomitant use of birth control pills and rifampicin. A similar association, though less marked, has been suggested with other ***antibiotics*** (ampicillin and other penicillin-type ***antibiotics*** , tetracyclines, griseofulvin). The theory is that these broad- spectrum ***antibiotics*** kill ***bacteria*** in the digestive tract that play an important role in maintaining adequate blood levels of contraceptive hormones. Estrogens and progestins have been reported to increase blood levels of antidepressants, benzodiazepines, antiasthmic drugs and cyclosporine. Interactions with imipramine and theophylline can be very dangerous. They can also increase blood levels of .beta.-adrenoceptor blockers (metoprolol and propranolol) and raise blood sugar so the dose of the diabetes drugs may need adjustment. ***Concurrent*** use of dantrolene with estrogens may increase the risk of hepatotoxicity. Women using oral contraceptives may need more vitamins (vitamin C, B6, E and folic acid). On the other hand vitamin C can boost estrogen levels. Grapefruit juice can increase circulating levels of oral

estrogens by about one-third and alcohol even more. Cigarette smoking increases the risk of serious cardiovascular side effects from oral contraceptive use. And the last, but not the least, estrogens may increase calcium ***absorption*** . This can be used to therapeutic advantage.

L15 ANSWER 58 OF 64 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
AN 92313462 EMBASE
DN 1992313462
TI Clinical pharmacokinetics of metronidazole and other nitroimidazole anti-infectives.
AU Lau A.H.; Lam N.P.; Piscitelli S.C.; Wilkes L.; Danziger L.H.
CS Dept. of Pharmacy Practice (M/C886), College of Pharmacy, 833 South Wood,Chicago, IL 60612, United States
SO Clinical Pharmacokinetics, (1992) 23/5 (328-364).
ISSN: 0312-5963 CODEN: CPKNDH
CY New Zealand
DT Journal; General Review
FS 004 Microbiology
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles
LA English
SL English
AB Metronidazole was first introduced for the treatment of trichomoniasis. Its therapeutic use has subsequently been expanded to include amoebiasis, giardiasis and, more recently, anaerobic infections. Most of the early pharmacokinetic studies employed nonspecific assays such as ***microbiological*** and chemical assays. These assays were not able to differentiate the parent drug from the metabolites or other interfering substances. Pharmacokinetic data obtained through the use of specific chromatographic techniques provide the basis for this review of recent pharmacokinetic findings concerning metronidazole and other nitroimidazole ***antibiotics*** . When given intravenously or orally at usual recommended doses, metronidazole attains concentrations well above the minimum inhibitory concentrations for most susceptible micro-organisms. The drug has an oral bioavailability approaching 100%. Rectal and vaginal administration results in a smaller amount of drug ***absorption*** and lower serum concentrations. Metronidazole has limited plasma protein binding but can attain very favourable tissue distribution, including into the central nervous system. The drug is extensively metabolised by the liver to form 2 primary oxidative metabolites: the hydroxy and acetic acid metabolites. The kidney is responsible for the elimination of only a small amount of the parent drug; however, normal excretion of the 2 metabolites is dependent on the integrity of kidney function. The metabolism of metronidazole was found to vary among patient groups. Preterm and term infants have lower total body clearance (CL) and prolonged elimination half-lives. However, children older than 4 years old were observed to have pharmacokinetic parameters similar to those in adults. Reduced CL was also observed in children who are malnourished. Elderly patients have reduced renal excretion of both the parent drug and hydroxy metabolite. Pharmacokinetic parameters in pregnant patients were not significantly different from those in nonpregnant women; however, the drug is distributed into breastmilk and the infant will be exposed to the drug through the nursing mother. Patients undergoing gastrointestinal surgery or having enteric diseases and those who are hospitalised or critically ill also have altered pharmacokinetics. Metabolism of the drug is reduced

in patients with liver dysfunction, giving delayed production of metabolites. In contrast, renal failure has little effect on the elimination of the parent drug, but affects the excretion of the metabolites more significantly. Haemodialysis was found to remove a substantial amount of the metronidazole while the effect of peritoneal dialysis was more limited. Energy and protein deficient diets as well as occupational exposure to gasoline did not alter metronidazole pharmacokinetics. However, the effect of alcohol consumption on metronidazole CL requires further study. Drug interactions with warfarin, alcohol, disulfiram, phenytoin, lithium, phenobarbital, phenazone (antipyrine), prednisone, rifampicin, antacids and cholestyramine have been reported. No significant change in pharmacokinetics was observed with ***concurrent*** administration of theophylline, alprazolam, lorazepam, diazepam, ciprofloxacin or sulfasalazine. Studies conducted with cimetidine revealed varied findings. Metronidazole is generally well tolerated when administered in dosages of <2g per day. Some adverse reactions, such as gastrointestinal effects, neutropenia, neuropathies and certain central nervous system effects, appear to be related to the dosage and treatment duration. On the basis of the available data on metronidazole pharmacokinetics and ***microbiology*** , the traditional dosage recommendation of 500mg every 6h is more than adequate to treat most anaerobic infections. In fact, a regimen of 500mg every 8h can be expected to maintain serum concentrations above the minimum inhibitory concentrations of susceptible anaerobic organisms. Alternatively, once-daily administration has also been suggested. There is also some recent evidence to support a postantibiotic effect of metronidazole on certain anaerobic ***bacteria*** . The pharmacokinetics of other nitroimidazole derivatives are similar to those of metronidazole. They all have good oral ***absorption*** , and extensive hepatic metabolism and tissue distribution. The elimination half-lives of most of the derivatives are longer than that of metronidazole with the exception of nimorazole. Side effects of the derivatives are generally mild and they are usually well tolerated by patients. One notable exception is misonidazole; its use is often limited by frequent peripheral neuropathy.

L15 ANSWER 59 OF 64 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
AN 82083862 EMBASE
DN 1982083862
TI The synergistic effect of immunoglobulins and antibiotics: An experimental study with rats.
AU Eckert P.; Naber M.
CS Stadt. Allg. Krankenh., D-6600 Saarbrucken, Germany
SO Infection, (1980) 8/6 (322).
CODEN: IFTNAL
CY Germany
DT Journal
FS 037 Drug Literature Index
LA English
SL German
AB Treating gram-positive bacteremia with antibodies administered parenterally has resulted in reports of good clinical experience. Very little is found in the literature, however, with regard to the possibilities for treating gram-negative infections. An experimental study should, therefore, be conducted to determine the extent to which the administration of human antibody concentrate affects the course of acute and diffuse peritonitis. We should also determine whether or not administering ***antibiotics*** ***simultaneously*** can further

improve a possibly good therapy. Fifty-four Wistar rats with a mean body weight of 180 g were operated on under etherization. Upon laparotomy incomplete devascularization of an upper jejunal loop was carried out which was then opened semicircularly. The peritoneal cavity was then closed without drainage. This procedure resulted in acute peritonitis. The animals were divided into five groups which were given different medication in the peritoneal cavity before the operation was completed. The first group of animals received no medication. Mortality was 100%. The second and third groups received either human albumin (20%) intraperitoneally or an immunoglobulin concentrate. In both groups 50% of the animals died within the first 48 h. The fourth group of animals was given azlocillin intraperitoneally. Mortality after 48 h was 10%. The fifth group was given azlocillin and immunoglobulins ***simultaneously*** , both administered intraperitoneally. Mortality was 0%. A large number of ***bacteria*** and their toxins are ***absorbed*** by the peritoneum via lymph and blood vessels. For this reason, a pulmonary infection can develop when these substances are filtrated in the lung. The animal's lungs were examined (histologically, by electron microscopy and weight) 48 h later to check the therapy. We found that the weight of the lungs had increased in all groups except for the group receiving the ***antibiotics*** and immunoglobulins ***simultaneously*** . This combination showed therapeutic synergism and was particularly capable of hindering the formation of an interstitial pulmonary edema in the presence of peritonitis.

L15 ANSWER 60 OF 64 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
AN 79065813 EMBASE
DN 1979065813
TI The effect of antibiotics on the photocycle and protoncycle of purple membrane suspensions.
AU Avi-Dor Y.; Rott R.; Schnaiderman R.
CS Dept. Biol., Techn. Israel Inst. Technol., Haifa, Israel
SO Biochimica et Biophysica Acta, (1978) 545/1 (15-23).
CODEN: BBACAQ
CY Netherlands
DT Journal
FS 037 Drug Literature Index
030 Pharmacology
004 Microbiology
LA English
AB The interrelation was studied between the phototransient ***absorbing*** maximally at 412 nm (M412) and light-induced proton release under steady-state conditions in aqueous suspensions of 'purple membrane' derived from Halobacterium halobium. The decay of M412 was slowed down by the ***simultaneous*** application of the ionophoric ***antibiotics*** valinomycin and beauvericin. The former had only slight activity alone and the latter was effective only in conjunction with valinomycin. The steady-state concentration of M412 which was formed on illumination was a direct function of the concentration of valinomycin. Maximum stabilization of M412 was obtained when the valinomycin was approximately equimolar with the ***bacteriorhodopsin*** . Addition of salts to the medium increased the number of protons released per molecule of M412 without affecting the level of M412 which was produced by continuous illumination. The effectiveness of the salts in this respect depended on the nature of the cation. Ca2+ and the antagonists La3+ and ruthenium red were found to have especially high affinity for the system.

The extent of light-induced acidification could not be enhanced by increasing the pH of the medium from 6.5 to 7.8. The possible mechanism of action of the ionophores and of the cations on the photocycle and on the proton cycle is discussed.

L15 ANSWER 61 OF 64 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
AN 77010665 EMBASE
DN 1977010665
TI Simplified method for antimicrobial susceptibility testing of anaerobic bacteria.
AU Fass R.J.; Prior R.B.; Rotilie C.A.
CS Div. Infect. Dis., Dept. Med., Ohio State Univ. Coll. Med., Columbus, Ohio 43210, United States
SO ANTIMICROB.AGENTS CHEMOTHER., (1975) 8/4 (444-452).
CODEN: AACHAX
DT Journal
FS 004 Microbiology
037 Drug Literature Index
030 Pharmacology
LA English
AB A simple, abbreviated broth dilution test (tube test) utilizing a commercially available medium and inexpensive disposable materials, and which could be performed entirely in room air was developed and used to test the susceptibility of 100 strains of anaerobic ***bacteria*** to clindamycin, chloramphenicol, ampicillin, and tetracycline. Results are reported in categories of susceptibility: susceptible to concentrations surpassed in vivo with usual dosage, susceptible to concentrations surpassed in vivo with high dosage, and resistant to concentrations achievable in vivo. Results are compared to minimal inhibitory concentrations which were determined ***simultaneously*** by using a microdilution method in an anaerobic glove box. 20 Strains of Bacteroides fragilis, 10 strains of Fusobacterium, 20 strains of Clostridium, 10 strains of gram positive nonsporeforming bacilli, and 30 strains of cocci grew to visible ***turbidity*** within 1 day of incubation. Of the 360 ***antibiotic*** organism combinations tested, 98% were in a susceptibility category that corresponded (within one concentration) to the actual minimal inhibitory concentration as determined by the microdilution method. After 2 days of incubation, growth was more abundant, but results often indicated inappropriate degrees of resistance. Variation in inoculum size had little effect on results. 10 Strains of B. melaninogenicus did not grow enough for susceptibility to be categorized accurately. The tube test could be used in any clinical ***microbiology*** laboratory for a limited number of susceptibility tests on anaerobic ***bacteria*** other than B. melaninogenicus without preparation of special media or purchase of special equipment.

L15 ANSWER 62 OF 64 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
AN 76029970 EMBASE
DN 1976029970
TI [Intestinal ammonia production in normal rats. Comparison of actions of antibiotics and lactulose].
L'AMMONIOGENESE INTESTINALE DU RAT NORMAL. ETUDE COMPARATIVE DE L'ACTION DES ANTIBIOTIQUES ET DU LACTULOSE.
AU Imler M.; Peter B.; Schlienger J.L.; et al.
CS Lab. Pathol. Int. Exp., Clin. Med. B, CHU, Strasbourg, France
SO Medecine et Chirurgie Digestives, (1975) 4/1 (15-20).
CODEN: MCDGBC

DT Journal
FS 037 Drug Literature Index
030 Pharmacology
048 Gastroenterology
029 Clinical Biochemistry
LA French
AB The respective efficiency of oxytetracycline, neomycin and lactulose on the hyperammonemia of portosystemic encephalopathy is still difficult to assess. The influence of these therapeutic measures on intestinal ammonia production was studied in 81 normal rats. Intestinal ammonia production was estimated by blood ammonia measurements in the superior mesenteric vein (SMV). After 4 days administration of ***antibiotics*** or lactulose, the ammonia level in the SMV was about 50% lower than in the reference group, but remained 5 times higher than in the systemic circulation; there was no significant difference between the efficiency of the ***antibiotics*** and the lactulose. The association of neomycin and lactulose did not act more efficiently than both compounds given separately. These results were compared to the pH and ***bacteriological*** modifications of the caecal content which were ***simultaneously*** studied. It may therefore be concluded that in normal rats ***antibiotics*** and lactulose have the same efficiency on the ammonia levels in the SMV but are not able to abolish completely the intestinal ammonia production or ***absorption*** .

L15 ANSWER 63 OF 64 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1997-348052 [32] WPIDS
DNN N1997-288435 DNC C1997-112499
TI Antibacterial sheet with high water absorbing power - composed of non-woven fabric containing inorganic antibacterial agent, and high water absorbing polymer layer..
DC A94 D22 F04 P32 P34
PA (HABI-N) HABIX KK
CYC 1
PI JP 09143850 A 19970603 (199732)* 6p
ADT JP 09143850 A JP 1995-304507 19951122
PRAI JP 1995-304507 19951122
AN 1997-348052 [32] WPIDS
AB JP 09143850 A UPAB: 19970806
The sheet (AS) comprises a nonwoven fabric (NF) containing an inorganic antibacterial agent (AB) and layer (LW) of a high water absorbing polymer (WP). (LW) is provided onto one side surface of (NF) of between (NF).
USE - (AS) is used for sanitary goods, disposable diaper, and medium for slop culture, etc.
ADVANTAGE - (AS) has a superior water ***absorbing*** power and ***antibacterial*** property ***simultaneously*** , inhibiting rotting by ***bacteria*** , etc.
Dwg.0/3

L15 ANSWER 64 OF 64 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1995-006772 [01] WPIDS
DNN N1995-005469 DNC C1995-002425
TI Instrument for culturing and detecting microorganisms in human tissue - has improved optical detection system and control system enabling the use of standard sampling bottles and automated operation.
DC B04 J04 S03 S05
IN BROWN, G; DANIEL, C; ***ENSCOE, G*** ; GARDNER, W; JARRARD, E; OLSON, C; WILLIAMS, G

PA (BAXT) BAXTER DIAGNOSTICS INC
CYC 19
PI WO 9426874 A2 19941124 (199501)* EN 105p
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
W: AU CA JP
AU 9470182 A 19941212 (199521)
EP 651786 A1 19950510 (199523) EN
R: BE DE ES FR GB IT SE
JP 07508892 W 19951005 (199548) 28p
WO 9426874 A3 19950119 (199611)
ADT WO 9426874 A2 WO 1994-US5392 19940513; AU 9470182 A AU 1994-70182 19940513; EP 651786 A1 EP 1994-919140 19940513, WO 1994-US5392 19940513; JP 07508892 W JP 1994-525745 19940513, WO 1994-US5392 19940513; WO 9426874 A3 WO 1994-US5392 19940513
FDT AU 9470182 A Based on WO 9426874; EP 651786 A1 Based on WO 9426874; JP 07508892 W Based on WO 9426874
PRAI US 1993-62659 19930514
AN 1995-006772 [01] WPIDS
AB WO 9426874 A UPAB: 19950110
An instrument is used for detecting the presence of micro-organisms in human tissue in a specimen vessel. It has means for holding specimen vessels and light emission means (126) arranged to permit emitted light to impinge on a sensor positioned on an inside wall of a vessel. A light detector (128) converts the light energy from the sensor into a signal and light blocking means covering all but a selected portion of the sensor prevents light other than light from the sensor from reaching the detector. Also claimed is an instrument for detecting the presence of micro-organisms in human tissue as above, but including a number of light sources. Also claimed is a sensor for fixing to an inside wall of a vessel for detecting the growth of micro-organisms within the vessel consisting of a sensor matrix to detect and a coating layer covering the surfaces not in contact with the vessel wall to prevent the passage of light. Also claimed is an instrument for detecting the presence of micro-organisms in tissue including a control circuit. Also claimed is an instrument for detecting the presence of micro-organisms in tissue using multiple sample vessels each contg. a tissue sample, culture medium and a fluorophoric element.

USE - The instrument is used for culturing and detecting the presence of micro-organisms in human tissue.

ADVANTAGE - The automated system uses an improved optical detection system which is relatively inexpensive and can be used with sturdier and less expensive bottles but has improved sensitivity.

Dwg.15a/17

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	181.96	182.11

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-4.12	-4.12

STN INTERNATIONAL LOGOFF AT 09:14:44 ON 13 MAR 2001

L15 ANSWER 61 OF 64 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
AN 77010665 EMBASE
DN 1977010665
TI Simplified method for antimicrobial susceptibility testing of anaerobic bacteria.
AU Fass R.J.; Prior R.B.; Rotilie C.A.
CS Div. Infect. Dis., Dept. Med., Ohio State Univ. Coll. Med., Columbus, Ohio
43210, United States
SO ANTIMICROB.AGENTS CHEMOTHER., (1975) 8/4 (444-452).
CODEN: AACHAX
DT Journal
FS 004 Microbiology
037 Drug Literature Index
030 Pharmacology
LA English
AB A simple, abbreviated broth dilution test (tube test) utilizing a commercially available medium and inexpensive disposable materials, and which could be performed entirely in room air was developed and used to test the susceptibility of 100 strains of anaerobic **bacteria** to clindamycin, chloramphenicol, ampicillin, and tetracycline. Results are reported in categories of susceptibility: susceptible to concentrations surpassed in vivo with usual dosage, susceptible to concentrations surpassed in vivo with high dosage, and resistant to concentrations achievable in vivo. Results are compared to minimal inhibitory concentrations which were determined **simultaneously** by using a microdilution method in an anaerobic glove box. 20 Strains of Bacteroides fragilis, 10 strains of Fusobacterium, 20 strains of Clostridium, 10 strains of gram positive nonsporeforming bacilli, and 30 strains of cocci grew to visible **turbidity** within 1 day of incubation. Of the 360 **antibiotic** organism combinations tested, 98% were in a susceptibility category that corresponded (within one concentration) to the actual minimal inhibitory concentration as determined by the microdilution method. After 2 days of incubation, growth was more abundant, but results often indicated inappropriate degrees of resistance.

Variation in inoculum size had little effect on results. 10 Strains of B. melaninogenicus did not grow enough for susceptibility to be categorized accurately. The tube test could be used in any clinical **microbiology** laboratory for a limited number of susceptibility tests on anaerobic **bacteria** other than B. melaninogenicus without preparation of special media or purchase of special equipment.